

MARINE RECORD

ESTABLISHED 1878.

VOL. XXI, No. 27.

CLEVELAND---JULY 7, 1898---CHICAGO.

\$2.00 Per Year. 5c. Single Copy

LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and improve the character of the service rendered to the public.

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REPORT OF SUEZ CANAL TRAFFIC.

A full summary of Suez canal traffic for 1897 has only recently been published. The full report of the directors shows that 2,986 vessels, with 191,215 passengers, passed through the canal in 1897. Of these, 2,103 were merchant ships, 727 mail steamers, 30 vessels in ballast, 112 war vessels and military transports, three steam yachts, eight tugs and three dredgers; 1,905 vessels were English, 325 German, 206 Dutch, 202 French, 78 Austrian, 71 Italian, 48 Spanish, 48 Norwegian, 44 Russian, 36 Japanese, seven Turkish, three Chinese, three Egyptian, three American, two Danish, two Siamese, one Mexican, one Portuguese and one Swedish.

The aggregate net tonnage was 7,899,374. In 1896 the number of vessels was 3,409 and the tonnage 8,560,284. The navigation receipts were 70,018,400 francs in 1897, against 76,487,716 francs in 1896; and the total receipts were 75,607,029 francs in 1897 against 82,222,855 francs in 1896. The decline is 3,300,000 francs on the commercial and 3,443,000 francs on the military traffic. The net dividend of 90 francs, however, will be only 2.50 francs below that of 1896. Expenses have been increased in many ways, but on the other hand salaries have been reduced. The efficient state of the canal is shown by the fact that average duration of transit is now 15 hours 36 minutes—a further reduction of 17 minutes.

In connection with the amount of business done by the canal, the following will be of interest:

Under the terms of a convention made in 1888, it was agreed that the canal should be kept neutral at all times, that no part of it or of its ports should be fortified, and that war material and ships of war should have the right to pass through it at all times, whether the countries to which they belonged were at peace or at war.

The Suez canal is 87 miles long and begins on the Mediterranean sea at Port Said, near the eastern end of that island ocean, and runs to Suez, near the head of the Red sea. Twenty-one miles of its length passes through a chain of small lakes, and the rest is in a cutting made mostly through earth. It is a tide-water canal without locks, and since it was widened and deepened in the latter part of the 80's and lighted by electricity it can be navigated by ships of 26 feet draught, and the passage can be made by day or by night. The speed of vessels in the cut is limited to six miles an hour, but higher speeds are allowed in the lake sections, and the average time of passage is now only from 16 to 20 hours, as against about 35 or 36 hours when the canal was first opened in 1869.

The canal makes a saving in distance over the old route around the Cape of Good Hope of 4,117 miles.

The canal tolls in 1896 were 9 francs a ton for laden passenger or cargo ships or war vessels; 6 francs 50 centimes a

ton for ships in ballast and without passengers, and 10 francs for each adult passenger; children half price. Ships of war and regular mail steamers usually get certain reductions from the regular rates.

TO REPORT HURRICANE CONDITIONS.

In the deficiency appropriation bill Congress has provided \$75,000 to establish and maintain weather service stations in the Caribbean Sea during the continuance of the naval operations in that quarter. This precaution is taken in anticipation of danger from hurricanes which visit that region with great fury during the summer season. It is thought that transports are more liable to damage than the heavy battleships, which have greater draft. Prof. Park Morrill, of the Weather Bureau in Washington, D. C., will establish headquarters for the service at or near Santiago and arrange for regular observations and daily reports of the atmospheric conditions of the Caribbean Sea and Gulf of Mexico.

NAVAL NOMENCLATURE.

The Secretary of the Navy has announced the names for the new vessels provided for in the naval appropriation bill, recently passed. The three battleships will be named Ohio, Maine and Missouri, and the four coast defense monitors Arkansas, Connecticut, Florida and Wyoming. The names of American naval heroes will be given to the sixteen torpedo boat destroyers, which will be known as Bainbridge, Barry, Chauncey, Dale, Decatur, Hopkins, Hull, Lawrence, MacDonough, Paul Jones, Perry, Preble, Stewart, Truxton, Whipple and Worden. One of the torpedo boats will be named Bagley, after the lieutenant who was killed on the deck of the Winslow a few weeks ago, the others to be christened Barney, Biddle, Blakely, DeLong, Nicholson, O'Brien, Shubrick, Stockton, Thornton, Tingey, Wilkes.

A LARGE RUSSIAN CANAL.

The Bureau of Naval Intelligence has published detailed accounts of a great canal project about to be undertaken by the Russian government. The canal will connect the Baltic with the Black Sea, and will enable Russia to concentrate her fleet at either end in less than a week. The canal begins at Riga and follows the course of the Duna to Duna-burg, and from there an excavation is to carry it to Lepel, along the water course to the Dneiper and down this river to the Black Sea at Cherson, which will be the southern terminus. Its entire length will be 1,080 miles, but by using the rivers the artificial construction will extend only 125 miles. The ports of Riga and Cherson are to be greatly improved. The cost of the entire construction is estimated at \$97,000,000, and its completion to follow within four years.

SIZE OF SHIPS IN THE BRITISH NAVY.

The proportion of large ships in the English navy is not nearly as great as is generally supposed. Sir William H. White Chief of the Construction Department, in an article in the "Nineteenth Century," says: "Taking the 190 ships of the English navy, it may be interesting to arrange them according to displacement tonnages. There are 22 ships over 14,000 tons; all but two are battleships; the exceptions are the "Powerful" and the "Terrible," cruisers. Between 12,000 and 14,000 tons there are 11 ships, seven battleships and four cruisers; between 10,000 and 12,000, 10 ships, two being battle ships. Twelve cruisers are from 6,500 to 9,100 tons, 24 between 4,000 and 5,800 tons, 46 between 2,000 and 4,000 tons. Between 1,000 and 2,000 tons there are 22 vessels, and 43 are less than 1,000 tons. Little more than one-fifth of the total number are over 9,000 tons."

FLOATING DOCK AT NEW ORLEANS.

With a view to providing facilities for docking the largest vessels, the Navy Department is about to call for bids for a steel floating dock capable of floating a ship of 15,000 tons, to cost \$800,000 and to be located at New Orleans. While the government intends to maintain the dock at New Orleans, it will be so constructed that it can be towed to any point desired. A board, consisting of Admiral Ramsay, Engineer Asserson and Naval Constructor Linnard, is about to make an extended tour of the sea coast, with a view to recommending sites for docks to be authorized by Congress hereafter. In this connection a provision has been inserted in the pending deficiency appropriation bill, authorizing the immediate purchase of two floating docks. It is said that the department has already inspected and secured options on two satisfactory docks now at New York, which will be towed to Key West, where they will be of great service, as they will accommodate all but the largest battleships and cruisers. The necessity for docking many vessels of the American fleet in southern waters has become so imperative that the department has dispatched a corps of fifteen divers to Key West to clean the bottoms of such vessels as are in the greatest need of such service.

OUR FOREIGN TRADE.

The exports of the United States for the fiscal year ending June 30, 1898, will be far in excess of any previous year in the history of the country. Indications point to a balance of trade in our favor of \$600,000,000 for the year ending June 30, 1898.

The statement of the bureau of statistics at Washington, gives some very interesting and significant information regarding the export of manufactured articles. For the first time in the life of the country they will exceed the imports. In the ten months of the report as made by the bureau the exports of manufactures exceed by \$40,000,000 the value of the manufactures imported, the full year will probably make the amount at least \$50,000,000.

Nearly every branch of our manufacturing interests has participated in the growth of our sales to other parts of the world. The following figures will serve to convey a good idea of the immensity of our trade.

They are for the eleven months ending May 1898:

Merchandise.	1897.	1898.
Exports.....	\$977,800,522	\$1,135,485,618
Imports.....	679,547,391	563,596,581
Excess of exports.....	\$298,253,131	\$571,889,037

THEN AND NOW.

Fifty-six years ago an important and almost forgotten event occurred in the American navy. It was the sailing on her first cruise, July 15, 1842, of the frigate Congress, the pride of the navy and the foremost of the modern all-sail frigates of the "Old Navy." So pleased and proud was the Navy Department with her that it at once decided to equip the vessel as no man-o'-war before had been; to officer her with the pick of the navy and to send her on her initial cruise to the Mediterranean to show her off to the fleets of the Old World and let them see what strides America had made in shipbuilding. The keel of the Congress was laid at Portsmouth, N. H., in 1839, and she was launched in 1841, and was put into commission May 6, 1842. She ranked in the navy as a first-class frigate and cost \$400,000 complete. Her dimensions were: Length 179 ft., beam 47.8 ft., hold 28.8 ft., and she had originally a maximum draft of 22.6 ft. She carried fifty guns, eight 8-inch and forty-two 32-pounders, and was the fourth vessel in the regular navy to bear the name Congress. What a vast change in naval vessel construction since the days of the old frigate, and there is quite a difference in price, too—from \$400,000 to about \$4,000,000.

FLOTSAM, JETSAM AND LAGAN.

Capt. Frank Perew, of Buffalo, one of the best known men on the lakes, is dead.

Capt. Donald McKenzie, who for the past three years had been keeper of the Duluth life-saving station, died Monday night after a long and severe illness.

Hanrahan—"Some av thim new guns will carry fifteen miles."

Houlihan—"At wan shot?"—Cincinnati Enquirer.

Awkward either way.—Coachman (driving stout old lady on lonely road in high wind): "Please, mum, will you 'old the 'osses while I run arter my 'at, or will you run arter my 'at while I 'old the 'osses?"—Fairplay.

The iron ship which is being built at Bath, Me., by A. Sewell & Co., is to be launched this month, and will be named the Erskine N. Phelps, after one of her owners. A new ship will be built on the same ways as soon as she is off.

MA AND DICKIE.—"Why did you push Elsie about so roughly, you naughty boy? 'What did she cheat for, then?" "How did she cheat?" "We were playing Adam and Eve, and she had the apple to tempt me with, but she chewed it up herself."

Lewis Nixon, Elizabethport, N. J., has received the contract to build a steel steamer of about 12 knots speed for the U. S. Coast Survey. She will have sail power of auxiliary value also and will resemble the gunboat Annapolis in appearance. \$150,000 is the contract price.

Capt. Charles Gale, Sombra, Ont., fell from a wagon this week and received such injuries as to be taken to the hospital, where it was found that his injuries were painful, and on account of his age rather serious. Capt. Gale will have a large number of sympathizers among the sailing community.

The receipts and shipments of grain at Duluth for the month of June were as follows: Receipts—Wheat, 1,250,624; corn, 221,358; oats, 100,711; rye, 40,086; barley, 31,395; flax 60,056 bushels. Shipments—Wheat, 1,487,092; corn 194,501; oats 922,856; rye, 107,000; barley, 51,703; flax, 245,383 bushels.

From Neafie & Levy's yard on Wednesday there was launched the seagoing tug Alfred W. Booth, being built for the Moran Towing Co., of New York. The vessel was christened by Miss Fanny Lamb, daughter of Dr. W. W. Lamb, of New York. The Booth, which is of steel, is 92 ft. in length.

The steamer Lora has had her name changed to the Alice Stafford, she is now owned by Fitzgerald and others of Milwaukee. It is also to be noted that the river passenger steamer Shrewsbury, owned by the Thousand Island Steamboat Co., and built at Bath, Me., in 1887 is now known as the New York.

The Milwaukee Evening Wisconsin generally reports marine items in a ship-shape manner, but it would be as well to remember that vessels seldom drag their anchors ashore as a sub-head over the following item would indicate: "During the storm on Saturday, the schooner George Sturges dragged her anchors ashore in Cecil Bay, Straits of Mackinac.

The Canadian steamer Seguin, Capt. Symes will deliver the Dominion light-house supplies on inland waters this year. The steamer commences at Montreal and calls at every government station on the St. Lawrence river and on the lakes. The trip takes about one month. The contract price is \$3,800—about \$200 cheaper than has usually been paid for the work. Last year the steamer Tilly had the contract.

A boating bulletin is one of the curiosities the Spanish war has brought forth this season on the lakes. There is published on the steamer Manitou, running between Chicago and Mackinac Island, a four-column folio paper daily, supplied with telegraphic war news received at the points at which the steamer stops. Bulletin boards are hung over the ship's sides when she is in port. There is always a crush of summer resorters to get the latest.

It is announced that the British Consuls at New York, San Francisco, Philadelphia, Baltimore, Portland, Ore., Boston, Rio de Janeiro, Rosario and Marseilles will be called upon to report in their annual returns their views as to the causes of the large numbers of desertions of seamen from British ships in their respective ports, amounting in the aggregate to over 14,000 per annum; the amount of unpaid wages left behind by the seamen so deserting, and what steps, if any, they recommend should be taken to remedy this great evil.

A law has been published at St. Petersburg, permitting the entrance into Russia from abroad, duty free, from 1st July, old style, for ten years, of iron ships destined for navigation in foreign seas; steam yachts, dredgers, ice-breakers, steamers, floating docks, and all vessels destined for use on the Danube, are dealt with. Anchors and chains for Russian ships will also be allowed entry free of duty for ten years. From 1st January, 1899, iron vessels, tugs, lighters, etc., for inland navigation will have to pay 20 gold roubles per ton, in addition to 3 gold roubles per square foot of boiler-heating surface.

United States Marshal R. T. O'Connor and others have been sued by the Inman Tug Co., Duluth, to recover \$3,000 for the damage occasioned to the tug Lyon by fire during the period that the boat was in the hands of the marshal a year ago last winter. The plaintiff alleges that the damage was due to the negligence of the officers. The defendants in their answer deny that the accident was due to negligence.

This case was started in the United States Court at St. Paul, and was last week transferred for hearing at Duluth.

The C. P. R. steamer Athabasca has been supplied with a direct connected lighting unit consisting of a 500-light incandescent dynamo, direct connected to a 50 h. p. high speed Ideal engine. This unit, which is very compact, occupies a floor space of less than 6x9 ft. The dynamo is of the latest steel frame multipolar type, with ventilated armature. A marble switchboard, on which are mounted a standard equipment of instruments, is also part of the new equipment, which is said to be the most complete on any of the steamers now running on the upper lakes.

According to the London Daily Telegraph, a new nautical word has been coined. A river passenger steamer, one of the grimmest and most tumbledown of the many dilapidated craft of the kind that plough the silent highway, nearly collided with a barge at London bridge. The skipper used strong language to the bargee, but to his taunts the latter bellowed: "Better take that old tub out to sea and 'Hobsonize' her!" The retort was greeted with a burst of appreciative and sympathetic laughter by the passengers on board the vessel thus characterized.

LAKE WRECKS AND CASUALTIES.

Following up the record kept in earlier years Mr. Norman B. Conger, lake marine agent, Weather Bureau, at Detroit, has compiled a chart showing the losses on the lakes during the seasons 1895, 1896 and 1897 caused by weather conditions.

During this time 81 vessels passed into history and 181 others were damaged to a greater or less extent by the elements, as may be seen by the subjoined table. Eighty-three of the 262 disasters recorded in the table can be attributed to foggy or smoky weather. Three fine steamers, representing a total valuation of \$658,000, went to the bottom during the three years. These were the Cayuga, \$335,000, on Lake Michigan; the Norman, \$163,000, and the Florida, \$167,000, on Lake Huron; the disaster in each case being due to foggy weather. The grand total valuation of vessels lost or damaged as a result of foggy weather is \$1,042,698, or more than a third of the aggregate loss of the whole period:

TABLE SHOWING THE NUMBER OF TOTAL AND PARTIAL LOSSES OF VESSELS ON THE GREAT LAKES, THE ESTIMATED VALUE OF EACH, THE NUMBER OF LIVES LOST, AND THE CAUSE OF THE DISASTER.

LAKES.	No. of Vessels.	No. Total Losses.	Estimated Value.	Due to Fog.	Due to Gales.	No. Partial Losses.	Estimated Value.	Due to Fog.	Due to Gales.	Total Estimated Losses.	No. Lives Lost.
Superior.....	36	12	\$416,900	0	12	24	\$171,102	8	16	\$588,002	8
St. Mary's River.....	12	0	0	0	12	34,900	10	2	34,900	0
Michigan.....	89	33	795,068	4	29	56	207,878	21	35	1,002,946	50
Huron.....	59	13	447,300	4	9	46	400,425	21	25	847,725	3
St. Clair and Detroit Rivers.	9	0	0	0	9	31,000	7	2	31,000	0
Erie.....	46	21	305,175	1	20	25	90,375	3	22	395,550	26
Ontario.....	11	2	47,300	0	2	9	84,600	4	5	131,900	3
Total.....	262	81	\$2,011,743	9	72	181	\$1,020,280	74	107	\$3,032,023	90

Ninety lives were lost during the three years, the greatest loss occurring when the steamer Chicora foundered on Lake Michigan, January 21, 1895, the entire crew of 26 persons perishing. The next largest loss occurred on November 6, 1897, when 19 of the steamer Idaho's crew perished with the foundering of that vessel off Long Point, Lake Erie. The loss of life in these two disasters constitutes one-half of the total loss of the three years.

DETROIT MARINE POST OFFICE.

LETTERS REMAINING ADVERTISED IN DETROIT, MICH., POST-OFFICE JULY 6, 1898.

To get any of these letters, addressees or their authorized agents will apply at the general delivery window or write to the postmaster at Detroit, calling for "advertised" matter, giving the date of this list and paying one cent.

Advertised matter is previously held one week awaiting delivery. It is held two weeks before it goes to the Dead Letter Office at Washington, D. C.

Anthony Peter, Str. Williams Johnston J. P.
Allaire John B. Knox J. H. (2) Str. Presley
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Bergeron Geo., Str. S. L. McDonnell M. J. Str. R. Full-ton
Watson
Brant Stewart Neri, John, (2) Str. Ericsson.
Conde James Str. Ericsson Ogden Ben.
Curley Thomas J., Str. Presley Popp L.
ley Porea L.
Cole Henry, Str. Shenandoah Porea, Amos.
Desott Henry Papst Chas.
Dy Bran John, Str. Continental Rockwood James H.
nental Scouten Thomas R.
Elmwood L. Stevens Ada
Hickey, F W., Str. Raleigh Thomas Franke
Henry Will, Wright Harry
Howard Andrew
Howard Chas., Str. Continental
F. B. DICKERSON, P. M.

BRITISH SHIPPING, PRESENT AND FUTURE, SHIPBUILDING, SALES, ETC.

In the semi-annual steamship circular just issued, Messrs. W. E. Moss & Co., Liverpool, say:

In our last circular we stated that, after so many years of pessimistic opinions, the prospects of steamshipping were more hopeful and healthier than they had been for years past, and what was of more importance, the improvement was likely to continue. We are happy to say that this prediction has been more than amply verified, even though it has been greatly assisted by the delay in completing the tonnage on the stocks, in consequence of the recent great engineering strike, and also by the war now existing between America and Spain, but we feel convinced, that, should even this come to an early conclusion, there would be yet ample employment of a profitable nature for all the steamshipping afloat for some time to come.

The opening up of China, and the great expansion of trade which is therefore sure to take place with that country, not only giving constant employment to steamers of large tonnage from Europe, but creating a large demand for vessels of moderate size and light draft for river navigation; the repeal of the duties of shipping for ten years by the Russian government; the probable granting of the half premium on navigation by the French government; the gradual displacement of sailing ships by steam; combined with the large amount of cereals that must be moved from one part of the world to another through the short crops principally in European countries, all tend to convince us that our prognostications with regard to the future for some time are likely to be correct.

Prices for building have advanced considerably during the last twelve months, in many cases from 10 to 15 per cent., moreover we do not see any likelihood of an early reduction, in view of the great amount of tonnage that is on order and the large contracts for war vessels that are already placed and about to be made by our own government and those of other countries. We must therefore look forward to an improved value in shipping for some time to come. Both new and second-hand steamers have found ready buyers, and prices are much higher than they have been for years past. The demand is still great, and likely to continue so, especially for vessels of handy size, of which so few have recently been built.

A vast amount of tonnage, both new and second-hand, has recently been sold, and large profits have been realized by those who contracted some time ago for new steamers, or bought second-hand ones. A sign of the times is to be seen in the large increase in the size of steamers, and many of from 8,000 to 12,000 tons dead weight are in course of construction or now afloat. These vessels, as time rolls on, are sure to displace the smaller ones, for which other trades will have to be found.

So far, this has been a record year. Shipbuilders and engineers have, with few exceptions, booked plenty of orders, mostly of a profitable nature, while shipowners have had freights higher than have ruled for years past, and if rates are not now so firm as they have been, fluctuations are only natural, and in the autumn we look forward to a still further improvement, and we may say even for still greater surprises, if, as is not unlikely, other political complications should arise; a probability which seems to have been overlooked by most of the shipping interest among the turmoil of present excitement.

DEATH OF CAPT. TOBIN.

Capt. Wm. D. Tobin, who died last Tuesday at Erie, Pa., was born eighty years ago in Ireland. His parents soon after came to the United States and settled near Erie. When the government commenced surveying the lakes Capt. Tobin was employed by Gen. McComb, the officer in charge. He surveyed Lakes Superior, Huron and Michigan.

When the surveying was finished Capt. Tobin was given charge of the light-house tender Dahlia, and held this position until he retired six years ago.

In surveying the lakes Capt. Tobin served under Gens. McComb, Mead and Comstock. While captain of the light-house tender he served first under Admiral McCann, then for three years under Commodore J. C. Watson, and later under Capt. Francis Cook, the present commanding officer of the Brooklyn. He also served under Capt. Elmer. He probably knew the lake soundings better than any other man; and he had sailed for fifty years.

DRY DOCKS UNDER ONE MANAGEMENT.

The officials of the Ship Owners' Dry Dock Co., Cleveland, have practically completed negotiations for the purchase of the Cleveland Dry Dock Co.'s plants and assets. Although the papers have not been signed the matter is nearly settled. The annual meeting of the Cleveland Dry Dock Co. was held on Tuesday, and a meeting of the Ship Owners' Dry Dock Co. was held July 2, when the matter was thoroughly discussed. The deal has been on for some time, and those having charge of it had matters in shape before the annual meetings were held. The Ship Owners' Dry Dock Co. was reorganized a few months ago, when a large block of the stock was purchased by parties that are largely interested in the Globe Iron Works Co. As soon as all the details of the deal are arranged the two docks of the Ship Owners' Dry Dock Co. and the Cleveland dry dock will be under the same management. The terms of the deal were not made known, but it is understood that some of the stockholders of the Cleveland Dry Dock Co. will be interested in the larger company, and that Capt. W. W. Brown, who has been manager of the Cleveland Dry Dock Co. for the past three years, will have charge of the three docks.

Some changes in the officers of the Ship Owners' Dry Dock Co. will probably be made as soon as all the details of the deal are arranged, which will be in a week or ten days. At the annual meeting of the Cleveland Dry Dock Co., Messrs. L. C. Hanna, H. A. Hawgood, J. B. Cowle, J. A. Smith, M. A. Bradley, W. W. Brown and C. E. Grover were elected directors. The officers elected were H. A. Hawgood, president; M. A. Bradley, vice-president; J. B. Cowle, treasurer; W. W. Brown, secretary and manager. There will be changes made among the officers and directors when the consolidation of the two companies takes place.

PITTING OF BOILERS.

In an article, M. Olroy, a French engineer, gives the result of his investigations in the pitting of boilers. He analyzed the powder found in the pits and found that it contained 86.26 per cent. of peroxide of iron, 6.29 per cent. of grease and other organic matter, and 4.25 per cent. of lime salts. He discusses the pitting of feed heaters, boilers, etc., mentioning the conditions under which pitting most frequently occurs. He also cites certain experiments in which a polished iron bar was first immersed in a natural water containing much oxygen and no lime salts. The bar gradually rusted but the corrosion ceased when the oxygen was used up. The bar was then removed, repolished and put back, after which it remained perfectly bright. Repeating the experiment with water containing lime the rusting was much less complete, the lime salts forming a protective layer on the iron, but on polishing this off corrosion recommenced. In distilled water the bar remained quite bright. The corrosion is much more rapid if the water contains carbonic acid gas as well as oxygen. In this case a voltaic action takes place. The rust first formed is electro-positive to the iron, which then dissolves away, decomposing the water. It is for this reason that in cases of pitting it is essential that all traces of the iron peroxide should be cleaned from the metal, or the rusting will continue.

GREAT MEN WHO WERE POOR PROPHETS.

(Herbert N. Casson in the Iron Moulders' Journal.)

When railroads were first proposed in this country the great Chancellor Livingstone declared that no one would want to risk his life flying through space at the rate of fifteen miles an hour. Daniel Webster said the frost on the rails would prevent the trains from moving.

Sir Walter Scott ridiculed gas, and asked how any one could "send light through street pipes."

The first steamboat that crossed the Atlantic carried over a magazine which contained articles proving that steamboats were impossible.

Chamber's Journal, in 1837, said: "We consider two-cent postage one of the most visionary ideas ever put forth. Its advocates make no allowance for the passions, the feelings, the habits and stupidities of mankind. Imagine everyone having to buy stamps before-hand for his letters! Looking at human society as at present existing, we are sure it would never work."

THIS number of the Arena also contains a thrilling patriotic poem entitled "Hobson of Alabama," in which the poet, John Clark Ridpath, immortalizes the brave young Southerner of the Merrimac fame. "The Argument with Guns," by Professor Frank Parsons, is a timely paper, in which the merits of war with Spain are soundly argued. Professor Parsons is well known to Arena readers.

A LIFE-SAVER PASSED AWAY.

(CAPT. DONALD MCKENZIE.)

Capt. Donald McKenzie, who for the past three years had been keeper of the Duluth life-saving station, quietly breathed his last at 10:20 o'clock on Tuesday night. The end was not unexpected. It had been known for many weeks that the veteran life-saver was beyond the reach of medical skill. Capt. James Prior of the Duluth light-house station and Acting Keeper John Creighton of the life-saving station, were at the bedside of Capt. McKenzie when he passed away. Capt. Prior accompanied the remains to Alpena, Mich., where they will be laid to rest beside Mrs. McKenzie, who died last September. Capt. McKenzie was a prominent Mason and a Knight Templar.

The direct cause of the death of Capt. McKenzie, who was otherwise a rugged and healthy man, was a cancer that appeared on his lower lip. About a year ago, he became alarmed at the growth of the cancer, and he then went to Ann Arbor, where an operation was performed to effect a removal of the cancerous growth. He returned to Duluth convinced that the operation had been successful, but in a short time there was evidence that the cancer was still at work. Capt. McKenzie went to Ann Arbor, and again an operation was performed. The captain returned to Duluth with renewed hope, but the cancer had not been reached, affecting with great rapidity the jaw and neck. Capt. McKenzie sought for relief then in many directions in the vain hope of recovery from some hitherto unexpected source. The results



THE LATE CAPT. DONALD MCKENZIE,
Keeper Life-Saving Station, Duluth.

were disappointing, and the friends of the patient, who were many, were startled to witness the inroads of the cancer. Capt. McKenzie, was too feeble and wasted to continue his duties as keeper of the life-saving station this season, and in the latter part of May tendered his resignation. Since then John Creighton has been acting keeper. Capt. McKenzie had been unconscious since last Thursday, but he did not give up hope, although during the past month the medicine provided the patient was designed merely to relieve him from pain as much as possible.

Capt. Donald McKenzie was born February 17, 1844, at Inverness, Scotland. He sailed for a number of years during his youth and early manhood, and was one of the first men to enter the U. S. life-saving service. This was in 1876, when he was a surfman at Hammond's Bay. Later he was a surfman at Thunder Bay Island. For fifteen years Capt. McKenzie was keeper of the Middle Island station. He was transferred to the Duluth station when it was established three years ago. In regard to his connection with the Masonic fraternity, it may be further said that he was a Shriner, having taken that degree at Alpena, Mich. Capt. McKenzie was a member of the Duluth Boat Club, of the Toledo Boat Club and of the Yachting Association and Canoe Clubs, also of Toledo.

NEW ATLANTIC STEAMSHIP LINES.

Our London contemporary, the Syren and Shipping, in a recent issue, contains two items of more than passing interest to the people of the United States in general and of the port of New York in particular. Two lines of steamships, capitalized at more than \$15,000,000 are about to be established, notwithstanding the fact that neither the transatlantic foreign trade nor the population of Canada increases. It is undoubtedly the intention of these lines to secure the larger part of the trade which they are established to carry by the diversion to Canada of imports and exports destined for or departing from the United States.

The contract entered into between the British government and Messrs. Peterson, Tate & Co., provides for the establishment of a service of four 10,000-ton twenty-one knot steamships, capable of maintaining an average sea speed of 500 knots daily, to carry between 1,500 and 2,000 tons of cargo, with accommodations for 50 tons of cold storage cargo and with accommodations for 300 first-class, 200 second class and 800 steerage passengers. These ships are to cost \$2,500,000 each, or \$10,000,000 all told. The contract requires that each ship of the line shall carry 150 immigrants at \$15 a head, whenever they offer, a rate of \$10 per head less than the present rate, and which provision it is expected will lead to a fierce rate war between the fast mail service line and the three present established lines known as the Allan, Dominion and Beaver line.

Messrs. Peterson, Tate & Co., assure the public, to whom they have just issued their prospectus, and which is unmercifully criticised by our contemporary, that they will carry at least 33,280 passengers annually, which would be double the number of passengers now carried. This will clearly show that the new line proposes making large drafts upon the transatlantic passenger service of the United States, upon the plea, that, being 800 nautical miles nearer to Liverpool, at the mouth of the St. Lawrence, than New York is, the sea voyage will be shortened to three and one-half days. This line also promises to reduce the time from England to Japan to three weeks, and from England to Australia to three and one-half weeks via the Canadian Pacific Railway, and "the establishment of faster steamships" on the Pacific, which, they say, is in contemplation.

The other new Canadian steamship line is capitalized at \$5,000,000, and is to connect Manchester via the Manchester ship canal with Canadian ports. We quote from their prospectus:

"Having regard to the rapid development and growing importance of the port of Manchester, this company has been formed as a Manchester Steamship Co., for the purpose of establishing and working lines of steamers of modern type, and large cargo-carrying capacity for trading to and from the port of Manchester.

"In the first instance it is proposed that three steamers shall be acquired for the purpose of running between Manchester and Montreal during the summer season, and between Manchester and St. John, New Brunswick (the port of the Canadian Pacific Railway) during the winter season, each of such steamers being designed to steam twelve knots an hour when fully laden, and for a dead-weight carrying capacity of about 8,500 tons. It is intended to have them fitted with modern requirements applicable to cargo steamers, including electric light and the best class of accommodation for cattle."

The steamers are now being built, one of which will be delivered in August, the other two next spring. The steamers Parkmore and Queensmore, built in 1890, and classed 100 A 1 at Lloyd's, have been purchased at a cost of \$300,000 in order that service may immediately be established.

Then it will be seen not only are the British shipowners losing no opportunity to secure the larger part of the carrying to and from North America, but the establishment of these two additional Canadian lines, when the present steamship service accommodates all of the traffic, constitutes a direct menace to the foreign trade of the United States.

Meanwhile, the people of the United States will probably stand idly by, and perhaps content themselves with praising the enterprising methods whereby these foreign steamship lines will succeed in diverting the import and export trade of the United States to their steamship connections via Canada.

A MODERN JULES VERNE.

Charles G. Armstrong, in a recent article, notes the interesting fact that the inclosed arc lamp was seemingly anticipated in Jules Verne's "Twenty Thousand Leagues Under the Sea"—a book which also foreshadowed the submarine boat and other modern actualities. As quoted by Mr. Armstrong, the French writer mentioned that "that wonderful ship was lighted by an arc lamp. The electric lamp was combined in such a way as to give its most powerful light—indeed, it was produced in vacuo, which insures both its steadiness and intensity. This vacuum economized the graphite [carbon] points, between which the luminous arc was developed—an important point of economy," etc. * * "Under these conditions the waste [the carbon] was imperceptible." Mr. Armstrong comments as follows: "Had he said their waste was very gradual he would have exactly portrayed the present operating condition of the inclosed arc lamp. While there is no evidence that he knew anything about electricity, he certainly made a fair guess as to what would be a good commercial article in 1897. If he were to ape the methods of some of our prominent electrical inventors he would undoubtedly come forward at this time and claim priority of invention."

TREASURY DECISIONS.

CUSTOM-HOUSE BROKERS.

Clerks or employees of importing houses who attend exclusively to customs business of their employers not custom-house brokers within the meaning of act of 1898.

TREASURY DEPARTMENT, June 28, 1898.

Sir: In reply to your letter of the 23d instant, I have to state that clerks or employees of importing houses who attend exclusively to the customs business of their employers are not customs brokers within the meaning of the act of June 13, 1898, and Department's circular, No. 110, of the present year, and, therefore, should not be subjected to the payment of tax imposed by said act.

Respectfully yours,

W. B. HOWELL, Assistant Secretary.

Surveyor of Customs, Kansas City, Mo.

CUSTOM-HOUSE BROKERS.

An employee of a railroad company attending to custom-house business of company not a broker, and not liable to tax imposed by act of June 13, 1898.

TREASURY DEPARTMENT, June 28, 1898.

Sir: In reply to your letter of the 22d instant, asking in regard to the status, under the revenue law, of Charles R. Thorne, an employee of the Lehigh Valley Railroad Co., the Department has to advise you that the employee of a private company who attends to the customs business exclusively of said company, is not regarded as a custom-house broker, liable to the tax imposed upon such brokers in the revenue act.

Respectfully yours,

W. B. HOWELL, Assistant Secretary.

Collector of Customs, Niagara Falls, N. Y.

SPECIAL TAX.

Brokers must pay special tax in each city where they do business.

TREASURY DEPARTMENT,
OFFICE OF COMMISSIONER OF INTERNAL REVENUE,
WASHINGTON, D. C. June 27, 1898.

Sir: In reply to an inquiry addressed to this office on the 21st instant by F. B. Vandegrift & Co., 50 South Fourth street, Philadelphia (who have to-day been referred to you), will you please inform them that, as custom-house brokers (as they state) in New York, Philadelphia and Chicago, they are required to pay a special tax of \$10 and take out the requisite stamp for each place of business in those cities.

It is held that the first clause of section 3235, Revised Statutes, applies to every business for which special tax is required to be paid, whether under old laws or under the new war-revenue bill.

Respectfully yours,

MR. P. A. MCCLAIN,

N. B. SCOTT,

Collector First District, Philadelphia. Commissioner.

VESSEL TICKETS.

In reply to numerous inquiries in regard to the stamping of tickets for passage on vessels to foreign or other American ports, the commissioner of internal revenue has held as follows:

First—Tickets sold, dated and issued prior to July 1, 1898, though for passage on vessels sailing after that date, are not subject to the stamp tax contemplated by schedule A of the act of June 13, 1898.

Second—Tickets issued in the United States for passage on a vessel not sailing from any port in the United States, but from a Canadian port or other foreign port, are not subject to the stamp tax under this statute.

Third—Tickets issued in Canada for passage on a vessel sailing from a United States port are not subject to stamp tax under schedule A.

Fourth—The only passage ticket for which a stamp tax is required to be paid by this statute is a ticket issued for transportation of the passenger "by any vessel from a port in the United States to a foreign port" when, therefore, to such passenger ticket there is attached another ticket entitling the passenger, after his arrival at the foreign port, to transportation to various points in Europe, or elsewhere, such additional ticket is not subject to the stamp tax.

Fifth—The stamp tax for passenger ticket may be affixed thereto and cancelled at the pier before the passenger boards the vessels.

Sixth—Where one passenger ticket is issued, even though it contains several coupons, but one stamp is required to be paid thereon.

Seventh—There is no exemption from the stamp tax on charity tickets issued at low rates.

Eighth—The company which leases a private telegraph wire between its New York and Philadelphia offices, which wire is used only for the private business of the company, is not required to pay stamp tax on messages sent over this wire by its own officers or employees to its own officers or employees.

FOR DISTRESSED AMERICAN SEAMEN.

(From the Congressional Record.)

Mr. Dingley.—I ask unanimous consent for the immediate consideration of the bill which I send to the desk.

The clerk read as follows:

A bill (H. R. 4629) for the relief of the owners of the ship Achilles.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that the Secretary of the Treasury be, and hereby is, authorized and directed to pay the owners of the British ship Achilles

\$1,543 for expenses incurred in rescuing, provisioning, and landing at Montevideo, the crew of the wrecked American ship Arabia, in June, 1895.

Mr. Dockery.—This bill has been up twice and has been fully considered. I think it is an entirely just measure, and I understand there is no objection to it.

Mr. Terry.—Reserving the right to object, I wish to ask the gentleman from Maine (Mr. Dingley) whether there is any precedent for action of this kind?

Mr. Dingley.—Oh, yes, sir. A general law provides for paying the expense of returning to this country shipwrecked American seamen, wherever they may have been shipwrecked.

The only difficulty about the matter is that the British ship, the Achilles, fell in with the wrecked and water-logged American vessel Arabia, off Cape Horn, on June 1, 1895, and rescued 28 American seamen from the wrecked vessel. Now, under the law she would be entitled to a certain amount for taking these seamen to the port for which she was bound, which was the German port of Hamburg. That would have been ample in that particular case, and would have been all that was required by maritime usage. Although, even then, this government would have also been obliged to pay the expenses of bringing these seamen from Hamburg to this country, and both amounts would have far exceeded the amount provided by this bill.

But it so happened that the British vessel did not have provisions enough on board to carry her own crew, together with the rescued seamen, to this German port, and inasmuch as if she had proceeded on her voyage as originally contemplated it would have been carrying these seamen further and further from their own country, as a matter of humanity as well as of necessity, under the circumstances she deviated from her course and went into the harbor of Montevideo—instead of continuing on her way to Hamburg—which delay resulted in considerable loss to the vessel and its owners, not only in time but in money.

Mr. Terry.—As I understand the gentleman from Maine, this vessel would have had provisions enough for its own crew?

Mr. Dingley.—It had.

This, Mr. Speaker, is not only in accordance with the general law, but it is in strict accordance with international usage and comity; and there would be no question, ordinarily with reference to this payment, if it were not for the fact that the law simply confines these payments to the distance traveled in transporting wrecked seamen.

Mr. Terry.—I had always supposed, Mr. Speaker, that this was a matter of comity amongst sailors themselves, a matter of reciprocity, and that there was no charge for it.

Mr. Dingley.—The United States government pays in every case, and so do other civilized governments, the expenses of the return of its shipwrecked seamen from any port or part of the world; and it would have done so in this case if it had been an ordinary case. But this case is a peculiar one, although it is exactly in accordance with what comity requires, and is especially appropriate at this time, in view of our relations with Great Britain. If the case were reversed, there is no question but that the amount would be paid by the British government without question.

Mr. Terry.—I have no objection whatever, after the explanation of the gentleman from Maine.

The Speaker.—Is there any objection to the present consideration of the bill?

There was no objection.

SUN'S AMPLITUDES.

The following approximate amplitudes of the Sun's rising will be given each week in this column during the season of navigation. A second bearing may be taken by compass at sunset by reversing the east bearings given for the nearest latitude, as the change in declination for a few hours makes but a slight difference in the true bearing of the Sun's setting:

LAKE ERIE AND S. END LAKE MICHIGAN, LAT. 42° N.		
Sunrise.	Bearing.	Bearing.
July 9.....	E. 31° N.	N. E. by E. ¼ E.
July 12.....	E. 30° N.	N. E. by E. ¼ E.
July 16.....	E. 29° N.	N. E. by E. ¾ E.
LAKE ONTARIO, S. END HURON AND CENTRAL PORTION LAKE MICHIGAN, LAT. 44° N.		
Sunrise.	Bearing.	Bearing.
July 9.....	E. 32° N.	N. E. by E. ½ E.
July 12.....	E. 31° N.	N. E. by E. ¼ E.
July 16.....	E. 30° N.	N. E. by E. ¼ E.
N. END LAKES HURON AND MICHIGAN, LAT. 46° N.		
Sunrise.	Bearing.	Bearing.
July 9.....	E. 33° N.	N. E. by E. ½ E.
July 12.....	E. 32° N.	N. E. by E. ¼ E.
July 16.....	E. 31° N.	N. E. by E.
LAKE SUPERIOR, LAT. 48° N.		
Sunrise.	Bearing.	Bearing.
July 6.....	E. 35° N.	N. E. ¾ E.
July 12.....	E. 34° N.	N. E. by E.
July 16.....	E. 33° N.	N. E. by E. ½ E.

With a compass correct magnetic, the difference between the observed and true bearing or amplitude will be the variation for the locality. Should there be any deviation on the course the vessel is heading at the time of taking the bearing, the difference between the observed and the true amplitude after the variation is applied, will be the amount of deviation on that course. If the correct magnetic bearing is to the right of the compass bearing, the deviation is easterly, if to the left, the deviation is westerly.

TRADE NOTES.

The Laidlaw-Dunn-Gordon Co., Cincinnati, O., has shipped three duplex fire pumps to Rangoon, India, to be used in large cotton mills, and seven duplex steam pumps to Yokohama, Japan, to be used at railroad watering stations.

An unusually large contract for seamless tubes has been placed by the government with the Shelby Tube Co., of Ellwood City, Pa. It calls for the complete furnishing of boiler tubes for the battleships Iowa, Indiana and Texas and the cruiser Bennington. This concern has also received an order for tubes for shrapnel shells.

The pocket edition catalogue, No. 3 (revised to April 1, 1898), of the Western Iron and Supply Co., St. Louis, Mo., is a very neat and handy little volume, profusely illustrated, giving complete list of supplies for steam and gas fitters, machinists, factories, mills, mines and railroads, boiler-makers and sheet iron workers. Copies of this catalogue will be mailed upon application.

The Ashton Valve Co., of 271 Franklin street, Boston, has sent us the most attractive desk blotter we have ever seen. It bears a good half-tone portrait of Admiral George Dewey, and "Old Glory," and the Cuban flag embossed in colors with the seal of the United States in colors and gold over the crossed staffs of the flags. It is a good blotter, but is too handsome to be used in that way.

Among recent shipments of gasoline engines by the Frontier Iron Works, of Detroit, Mich., is one 50 h. p. tandem for Waverly, Tenn.; one 60 h. p. to Sanborn, Ia., and one 50 h. p. to Silver City, Ida.; also several 40 h. p. of the tandem type. This engine has proved especially successful for electric lighting and mill work, where a steady regulation is desirable, and the demand for them is steadily increasing.

The American Steam Gauge Co., 34 Chardon street, Boston, Mass., inform us that the lithographs which they recently issued of the sailor bearing the stars and stripes and entitled "Our Country's Standard," have all been disposed of, and they regret, owing to the destruction of the original plates before all demands had been supplied, that they were unable to send them out to all who wanted them. This company has recently furnished complete engine room outfits for the two government torpedo boats now building on the Pacific coast. These outfits include gages, valves, etc., and the order was placed by Wolff & Zwicker, of Portland, Ore.

The Lunkenheimer Co., of Cincinnati, O., are issuing for the use of engineers a simple and practical chart giving diagrams of a new method of analyzing the movement of the slide valve. Every engineer should have one of these charts, as it will enable him to understand the relation between the slide valve and crank movements without the aid of any intricate mathematical calculation whatever. They will send them free to any engineer.

Mr. Thos. N. Mordue, Old Colony building, Chicago, agent for Castner, Curran & Bullitt, Philadelphia, sales agents for Pocahontas coal, is issuing a neat little eight-page pamphlet entitled, "Directions for Firing Pocahontas Semi-Bituminous Smokeless Coal." The booklet gives clear and concise directions how to "fire" with this now well known coal, and the instructions are so simple that any fireman can comprehend them. Mr. Mordue will take pleasure in mailing copies to interested parties.

The American School of Correspondence, 156 Tremont street, Boston, Mass., offers to mechanics an excellent opportunity for securing an education in their chosen field. The school is conducted by men well known in the engineering field, among whom are Dr. Robert Grimshaw, George L. Fowler and Francis H. Boyer. The school confines its attention exclusively to steam, electrical and mechanical engineering. They will be pleased to send a copy of their handbook on application free to any interested parties.

The Harrison Safety Boiler Works, Philadelphia, Pa., have issued an elegant new catalogue of the Cochrane separators for purifying exhaust steam from cylinder oil, for taking water out of live steam, and for removing oil, grit, etc., from ammonia currents, compressed air, etc. This catalogue is gotten up in excellent style, handsomely illustrating and describing these separators in all their various types and uses. A long list of users and an abundance of endorsements also contribute to make it creditable to the company's enterprise and reputation for efficient workmanship.

The Boston and Lockport Block Co., by its president, Albert D. Bosson, and treasurer, Myron H. Tarbox, have just bought from the assignees of the Bagnall-Loud Block Co. (which was a Maine corporation, organized in 1894, Robert M. Barnard, president, and Herbert Loud, treasurer,) all the stock of the Bagnall-Loud Block Co., manufactured and in process, machinery and patterns, etc. The Boston and Lockport Block Co. is a New York State corporation. The finished stock will be at once removed to their store at No. 142 Commercial street, Boston, and the balance to their factory at East Boston.

A very elaborate hanger has just been gotten out by the Wm. Powell Co., of Cincinnati, O., showing their Powell's Star regrinding globe valve. A handsome embossed picture of the valve is in the center of the hanger, and surrounding this are maps of the different countries where the Powell valves are used, showing that they are used all over the world. The hanger is very handsomely printed and will make an ornament for any engine room or office, and we advise our readers if they wish one to send at once before the supply is exhausted.

THE SKY FOR JULY.

(Communicated.)

The winter constellations have disappeared not by reason of increased distance from us, but because they are above our horizon in the day time and hence lost in the superior brightness of the sun. Even Capella is too near the horizon toward the northwest to be easily recognized. Only six first magnitude stars are now visible in the evening. They are Arcturus in Bootes, near the meridian in the early evening. Spica in Virgo, south and a little west of Arcturus, Regulus in Leo, toward the west about midway between the horizon and zenith. Regulus, Arcturus and Spica form an isosceles triangle with Regulus at the vertex of the equal sides, Antares in Scorpio toward the south, just east of the meridian, Vega in Lyra toward the northeast and Altair in Aquila the farthest east of the number.

A lone star, a little below the second magnitude, may be seen following the Great Bear. This is Alpha, of the Hunting Dogs, more generally known as Car Caroli and is at the northern extremity of the greater axis of the Diamond of Virgo. Spica marks the southern extremity of the same axis and Denebola, Beta Leonis and Arcturus are at the extremities of the shorter axis of the diamond. This is the great diamond of the sky and it will be favorably situated for observing during the present month. Arcturus is its most brilliant gem. In contrast with this great diamond about ten degrees northeast of Altair is Delphinus, the Dolphin, whose figure is that of a small diamond of third and fourth magnitude stars, popularly known as Job's Coffin.

Jupiter in Virgo is slowly moving toward the east. This is the last month that we shall be likely to obtain good views of this magnificent planet with his wonderful satellite system for a long time.

Venus is still moving eastward, and hence is farther from the horizon each evening at sunset. She is also approaching the earth and increasing in brightness, though even now she is without a rival in brilliancy among all the starry hosts. She will be in conjunction with the crescent moon the morning of the 21st, and though the conjunction is not a close one, they will form a pretty picture in our western sky the same evening. Saturn is a few degrees north of Antares in Scorpio and is still the most beautiful telescopic object available in the evening.

Uranus is also in Scorpio, and though just beyond the limit of unaided vision is easily identified in the field by a small telescope. Mercury, though nominally an evening planet, is too near the sun to be easily seen.

Mars is the only planet now visible in the morning. Only one small single spot has been observed on the sun during the past month.

Our days are slowly shortening, both morning and evening and the earth is again lessening her distance from the sun.
D. SATTERTHWAITE, Toledo Ohio.

CANAL WORK IN ONTARIO.

The Galops canal extends from the town of Iroquois (in the county of Dundas) to the head of the Galops Rapids, a distance of about 6 miles. The work of enlargement now in progress is designed to raise the normal level of the existing canal 6 feet—that is, to the height of the lowest known stage of water in the St. Lawrence river, above the guard lock at the head of the Galops Rapids. The prism of canal will have a width of 80 feet on bottom, with slopes of 2 to 1 throughout, and a depth of 15 feet at lowest water.

A new lock will be built at Iroquois about 200 feet south of the present one. The masonry will be of the best class of limestone, peck faced, laid in cement, and in courses varying from 18 to 30 inches in height. The lock will have two chambers, the lower to be 530 feet in the clear and the upper 270 feet by 50 feet in width, with a lift of 11½ feet at normal water, which at the lowest stage of the river, is increased to 17 feet. The lock will be built during the season of 1898, and it is expected that one-half of the prism will be completed so that vessels with a draft of 15 feet may pass through with the opening of navigation in 1899.

About 1,200 workmen of all classes are now engaged in this work. This enlargement will cost the government at least \$2,000,000.

A LARGE EASTERN SHIPYARD TO COMPETE.

The Maryland Steel Co., at Sparrow's Point, Md., has decided to put its shipyard into operation again, which will bring into existence a strong competing plant to the large concerns of that nature now in operation. The actuating motive of the Maryland Steel Co., to again start up its yard is for the purpose of obtaining a share of the government work, which is to be given out shortly. Congress has auth-

orized the construction of a number of coast defense vessels, which are more properly styled monitors, several battleships and a number of torpedo-boat destroyers, making altogether about thirty-five vessels. Millions of dollars will be disbursed in their construction, and the management of the Sparrow's Point works believe that it is a favorable time for them to enter the list for that class of work. The yard, which has been in idleness for over three years, so far as ship-building work is concerned, is one of the best equipped yards in the country for marine work, the plant representing an investment of over \$1,000,000. It was planned on a scale which contemplated making it the greatest shipbuilding yard in the country. Its shops contain the best and most modern tools in the world for ship work, and there are slips already prepared for laying down the keels of at least six vessels of any size desired, with room for increasing the capacity at any time. As soon as advertisements are issued asking for bids on the authorized war vessels the Maryland Steel Co., will be in position to have a voice in bidding for the work, and will be a strong competitor against the other concerns of the country. It is likely the Maryland company will confine itself to bidding on the torpedo-boats, torpedo-boat destroyers and monitors.

A VERY INDIFFERENT SHOWING.

Of America's total commerce with foreign countries but 11.03 per cent. was conducted last year in American ships. Of our total trade with North America 48.38 per cent. was in American ships. Of our trade with Australia 23.41 per cent. was in American ships. Of our trade with South America 20.77 per cent. was carried in American ships. Of our trade with Asia 13.43 per cent. was carried in American ships. Of our trade with Africa 11.77 per cent. was carried in American ships. Of our total trade with Europe only 3.6 per cent. was carried under the American flag. But it remained for Hawaii to transact no less than 80.72 per cent. of its business with the United States under the Stars and Stripes.

THE AUXILIARY NAVY.

A few days ago the government purchased from the Baltimore Storage and Lighterage Co. for \$4,000,000 seven vessels to be used as transport and supply ships. They are the Mohawk, Mobile, Massachusetts, Manitoba, Minnewaska, Michigan and Mississippi. The company operates the Atlantic Transport Line. All of the vessels were built at English shipyards and were in charge of English captains. They will be delivered to the government in New York. The Massachusetts, Manitoba, Mohawk, Mobile and Minnewaska each have an average tonnage of 5,700 and are fitted with twin screws driven by triple-expansion engines developing a speed of 12½ knots per hour when fully loaded, upon a coal consumption of 60 tons per day. The Michigan and Mississippi, each of 3,700 tons, single screws, are driven by triple-expansion engines, developing a speed of 11¼ knots per hour on a consumption of 35 tons of coal per day. The liner Obdam, of 3,650 tons, was purchased from the Netherlands-American Steam Navigation Co. On June 28 the steamers Alexandra, Boadicea, Victoria, Cleopatra and Winifred were purchased in London, of the Wilsons and Furness-Leyland lines. All are nearly new and each has a tonnage of about 7,000. Altogether the government has bought 258 boats since the beginning of the war. The list includes all manner of craft from naphtha launches to vessels of 8,000 tons.

NO BREACH OF NEUTRALITY LAWS.

A special received at Toronto, Ont., states that the Evening Telegram's London special cable says:

"The protest of the Spanish ambassador against putting together the parts of the United States dispatch boat Gresham in Canadian waters has elicited a reply from the British foreign office to the effect that it is not considered a breach of the neutrality laws."

The Spanish government takes the ground that the passage of the Gresham through the St. Lawrence canal in sections, and the riveting of the two sections together at Montreal, constitute a breach of the neutrality laws, and it is stated that the Spanish government already has a ruling in general terms from the British government that such a procedure would not be allowed.

It is stated that the operation of bringing the Gresham and her sister lake revenue cutters through the canals was the principal thing Lieut. Carranza of the Spanish navy was left in Montreal to contest, and that, having the general principle of illegality admitted by the British government, the Spaniards waited until the cruisers were cut in half and were in Canadian waters before making the specific demand.

NOTES.

THE Dominion Minister of Public Works recently stated that he quite realized the importance of having a dry dock at Owen Sound, but he had no proposal to make regarding it.

TORONTO-BUILT ships will soon be plying on every part of Canada's inland waters. The government could not do better than give our shipbuilders an outlet to the ocean by ordering here the new vessel authorized by Parliament for the Prince Edward Island mail service.—Toronto Globe.

THE topic of "International Piracy in Time of War" is treated by W. L. Penfield in the "North American Review" for July, who evidently advocates the adoption of the principle of the inviolability on the high seas of all private property, except contraband of war, whether found in neutral or enemy bottoms.

A NOTE from a recent report to the French academy by Mascart states that a north pole had been found at Kotchetooka, a village in Russia. The magnetic needle assumes a vertical position at this point, and the horizontal needle remains in equilibrium in all positions. The latitude is 52 degrees north.

REPRESENTATIVE Gardner, of New Jersey, has introduced a bill in Congress which proposes to issue life and accident insurance policies to members of the army and naval forces of the United States, the amount to be paid on loss of life or injury in the service to be in lieu of all claims or pensions by soldiers or sailors or their representatives.

TARIFF protection is building up the Canadian ship building industry. If we had free trade in ships the people of Toronto would not have been gratified last week at witnessing the launch of what is probably the largest and finest passenger steamer ever built in Canada. It would have been built in Cleveland or some other American city.—The Canadian Manufacturer.

THE issue of Cassier's Magazine for July, like that for June, is a war number, in the sense that it is completely given up to naval subjects, each handled by the highest authority with a wealth of appropriate illustrations. The following are some of the most interesting articles: "Protection of British Commerce in War Time." By rear Admiral Lord Charles Beresford, C. B. M. P. "The Ram in Modern War Fleets." By Wm. Ledyard Catheart. "A Chapter in the History of War Ship-building in Great Britain and France." By Sir Nathaniel Barnaby, K. C. B.

CONSUL DUNLEY writes from Vancouver, under date of April 27, 1898, that a telegraphic cable has just been laid from English Bay, west of Vancouver, to Departure Bay, near Nanaimo, Vancouver Island, a distance of 32 miles. This cable, says the consul, replaces an old and imperfect one, which heretofore connected the mainland with Victoria and other points on Vancouver Island. A telegraph line will be connected with the cable at Departure Bay, and will follow the line of the railway from Nanaimo to Victoria; the line formerly in use passed through the forests and was very difficult to keep in repair. It is now expected that there will be uninterrupted communication between the mainland and Vancouver Island.

UNDER date of April 30, Consul Smith, of Victoria, says that the following are among the appropriations made by the Dominion government: Forty-thousand dollars for a survey of the Edmonton route to the Yukon and \$45,000 for a survey of the Stikine river to an ocean port in British Columbia; \$396,000 for government of the Yukon district; \$10,000 for Nanaimo harbor, improvements of the south channel, etc., \$5,000 for Columbia river improvements above Golden; \$20,000 for improvement of ship channel of Fraser river; \$3,000 for general repairs and improvements to harbors, rivers, and bridges; \$3,000 for Skeena river; \$5,000 for improvements in the Columbia river, in the narrows between Upper and Lower lakes; \$2,000 for the removal of rocks in the Columbia above Revelstoke.

IN recognizing the deeds of devotion brought out by the war, the engineer should not be lost in admiration for the soldier. The remarkable runs of the Oregon and Marietta were successful fully as much by reason of the skill, integrity and devotion of the designing, constructing and operating engineers as to the officers who directed the movements of the vessels. The care, foresight and ability necessary to carry a vessel through a forced run of sixty-five days without a single accident or delay, and bring her out in condition to go immediately into action, can be appreciated only by the man who has served his time in the stoke hole and on the gratings. On the Oregon the engineer officers voluntarily doubled their watches when high speed was to be made, and the men attempted to return to the fire room after being carried out of it insensible.—Power.



ESTABLISHED 1878.

Published Every Thursday by

THE MARINE RECORD PUBLISHING CO.,
Incorporated.

GEO. L. SMITH, President.

C. E. RUSKIN,	-	-	-	Manager.
CAPT. JOHN SWAINSON,	-	-	-	Editor.
THOS. WILLIAMS, Chicago,	-	-	-	Associate.
CLEVELAND,			CHICAGO.	
Western Reserve Building.			Royal Insurance Building.	

SUBSCRIPTION.

One Copy, one year, postage paid,	-	-	\$2.00
One Copy, one year, to foreign countries,	-	-	\$3.00
Invariably in advance.			

ADVERTISING.

Rates given on application.

All communications should be addressed to the Cleveland office.

THE MARINE RECORD PUBLISHING CO.,
Western Reserve Building, Cleveland, O.

Entered at Cleveland Postoffice as second-class mail matter.

CLEVELAND, O., JULY 7, 1898.

THE Senate bill No 622 reported by the committee on merchant marine and fisheries was reported in the House of Representatives on Tuesday. After considerable discussion and some minor amendments being made the bill was passed. It will be remembered that the Legislature is primarily to license officers of all sail vessels over 700 tons though from the discussion in Congress which we publish in extenso elsewhere in this issue it would appear as if it was now to be made practicable only on the lakes.

OBJECTION was raised by Senator Eugene Hale, of Maine, to the Frye bill requiring vessels to exhibit the United States ensign on entering and leaving port, and the measure has therefore been placed on the calendar. This is the only maritime nation that is without such a law, and why Senator Hale should object to the legislation asked for by his colleague, and especially after it was unanimously recommended by the committee on commerce, he declined to state. The custom has always prevailed in a general way, and the law (exempting lake ports) should have been passed.

THE foundering of the French Atlantic liner La Bourgogne on the morning of July 4th, through collision with the British sailing ship Cromartyshire, sixty miles south of Sable Island, whereby from four to five hundred persons lost their lives, will be a serious warning to those engaged in the trans-Atlantic trade and it is to be hoped that the lesson will lead to some modification of speed being made when these large powerful steamers are enveloped in fog. It has been argued and with some show of logic, that the greater the speed maintained the less the danger, not only because the vessel is under better command when steaming rapidly than she would be if slowed down, but principally because the higher rate of speed that is maintained, the quicker the vessel gets out of the danger circle or limits. For instance, if there is a belt of fog extending over an area of two-hundred miles, and in the ship's path, she could, if steaming at the rate of twenty miles an hour, not only be under better command and consequently in more immediate control, but, she would be free of all danger in the space of ten hours, now, if the vessel slowed down to half speed she would increase the risk a hundred per cent. by being in the belt of fog for twenty hours, during which time she would not be under as complete control as in the case of going at full speed. On the other hand, carrying the mails and passengers, time is not allowed for detention through fog or other weather conditions, the passage must be made, and everyone is eager to save time, (under safe navigation of course) and if time is to be made there is involved an element of danger, which only too surely results as in the present case. The Ville de Havre, another of the French line and the City of York in 1870 was an exactly similar case.

NATIONAL LIVERY FOR MERCHANT SEAMEN.

Anything, almost anything, is liable to emanate from Chicago, as witness the following: "An appeal has been made to the Supervising Inspector-General of Steamboats to fix upon a uniform for the merchant marine of the United States. It is the result of so many conflicting styles of dress for the merchant marine, particularly on passenger boats. It is urged in the appeal that at present there is no distinctive kind of uniform to designate the man in the merchant marine, and there is no telling from the dress of men so engaged what their employment is." By rooting up some old "blue books" it might be learned that there were rules, regulations and limits, masculine and feminine, regarding dress, a handful of years ago, even to the cut of the hair and, or, beard, and so Chicago would like to do it all over again. We have quite a curiosity to learn the names of the signers of that appeal and see who it is that wants to go into livery just at this time. There is nothing picayunish about the appeal, though, based as it is, upon a national requirement. We entertain an unlimited amount of credence in the skill, discretion and experience of the Supervising Inspector-General of Steamboats; were it otherwise, it would be a favorable opportunity for us to close up alongside, throw our grappling hooks aboard and communicate with the Inspector-General regarding the how, when and where, also the vanity of wearing blue suits, bright chains and brass buttons. Oh, what a chance there is here for an Inspector-General having an eye to the eternal fitness of modern uniform apparel, to design, by special request and appeal, some chic, unique, picturesque and ornamental national livery rigs and costumes for all sorts of sailors. Private interests being found not qualified to attend to their business, a government department must therefore step in to regulate matters. Truly a commander should be distinguished from a call boy as well as a roustabout from a rope-hauler. We might suggest in this connection that latitude and longitude, or at least locality, could be designated by the style and cut of the uniformed hosts of water laborers. For instance, those working in high latitudes, say all north of 44°, to wear a blue, a deep, heavy blue, so that they might be comfortable, when the snow flew and the wind blew, for there seems to be no question about the blue part of it, then as the liveried regiments took up their occupation south, the material, fabric and shade should be modified to suit each parallel of latitude. As regards longitude, the rare old down-east workers might be fitted with an eye to the artistic in cut and style, the same being modified for the Middle and Central States, and the undress uniform of hickory shirt and gum boots be permitted to be worn at the stepping-off places on the Pacific Slope. On the whole, this is a most momentous question and may have a future bearing on the rehabilitation of the United States mercantile marine. We again asseverate our faith in the discretion of the Supervising Inspector-General, and will humbly acquiesce in his decision in the matter, whichever way he rules after he hears about the foregoing petition.

STEEL FOR BRITISH SHIPYARDS.

In a recent issue of the RECORD we remarked that a Chicago firm had completed a large grain elevator at Manchester, England, thus showing the English the commercial value of such structures. We have now to announce that steel for the highest class ships under construction in the United Kingdom is being furnished by the Carnegie Co. from their Homestead mills. Since the first of May, 1,850 tons of tested material has been shipped across the Atlantic; 1,500 tons of this first consignment has gone to Harland & Wolff, of Belfast, Ireland, and the balance of 350 tons to Scotland. The classification society known as Lloyds Register, not being entirely willing to accept the tests of material as certified to by local inspectors, sent out a special surveyor to Pittsburg in their behalf, and the work of getting out the metal was commenced the day after his arrival at Homestead. As might have been expected, the material met with the surveyor's unqualified approval and the economy of the manufacture is such that an unlimited quantity of the finished product is likely to be shipped across the Atlantic; in fact, an option has already been given on a large annual output for the British yards. We are at liberty to quote Lloyds Register surveyor in saying that British mills have not a shadow of a chance to successfully compete with the Homestead product, and he further states that with the aid of modern facilities and labor saving appliances one man at the Carnegie works does the work of several men as carried on in the British mills, furnaces, etc. Hitherto there has been an inclination to stretch the long bow a trifle

in favor of United States shipbuilding products; there may also have been some slight buncombe relative to the capabilities of some of our shipyards, engine building plants and boiler making departments, but now that we have begun to supply British shipbuilders with steel under their own tests and at a less cost, transportation included, than they can procure similar material on the other side of the Atlantic, the chances are that we can now go ahead and build a United States mercantile marine to compete with the British in the over-sea carrying trade of the world, as the lessened cost of the production of steel shipbuilding material will no doubt be found to nearly offset the increase of wages paid to workmen of the United States. Be this as it may, the fact that we are furnishing foreign shipyards with steel is an all-sufficient reason for utilizing the product ourselves, and as the building as well as the handling of high classed modern tonnage is found to be a lucrative pursuit in the United Kingdom, there can be no reason why the industry should not be equally as profitable to citizens of the United States.

WE suppose the marine news service at Chicago desires to keep its end up with its daily newspaper contracts through these dull times, and, besides sending on vessel passages to its patrons, picks up choice morsels, though too many such are being perpetrated recently. The last one is a Chicago petition, said to have been sent to Washington about a week ago, to uniform all officers on passenger boats. This united marine news service association petition has not developed, however, as yet, nor has the steamboat inspection department seen or heard anything more of it than the Chicago dispatch sent around to all lake daily papers. It is wrong and misleading to use the wires to disseminate ridiculous one-man gush. If a story must be fabricated, let it go as such and not make a marine news item out of it under any circumstances. We are well aware that business is dull in marine and transportation circles, consequently news is slack, but it is only a temporary lull before a brisk, lively time sets in again.

PENDING the result of the Attorney General's decision relative to the tax on charters, as promulgated by the act to meet war expenditures, etc., there has been some doubt expressed as to whether a shipper as charterer, or the vessel as a carrier, should pay the charter tax as specified in our issue of June 23, and furthermore, whether the stamp duties apply to lake bottoms. Harvey D. Goulder, Esq., as counsel for the Lake Carriers' Association has filed a brief on the subject with the Treasury Department, and an early ruling is expected relative to the application of the law as regards inter-lake traffic. There is no question but that vessel agents and brokers must pay an annual twenty-dollar tax, as also must all certificates of vessel surveys be duly stamped. Shippers can of course purchase as many stamped bills of lading as they desire.

REAR ADMIRAL John G. Walker, president of the Nicaragua canal commission, before the Senate committee on the Nicaragua canal last week, stated that, while the commission had not yet completed its work, from the examinations already made, the plan for a canal along the proposed route was entirely feasible. He estimated the canal could be built for \$125,000,000, and thought by modifying the present plans the necessity for one or more dams could be avoided.

THE thanks of the RECORD are due the Weather Bureau, Department of Agriculture, for a copy of the meteorological chart of the lakes for July. The chart, besides showing the form, extent and duration of fogs, contains other valuable data of direct interest and importance to the lake marine. The information furnished has been compiled by Mr. Norman B. Conger, official forecaster and marine agent, Weather Bureau, Detroit.

LAKE FREIGHTS.

The freight market has been very quiet during the week, partly on account of the holidays, and in so far as iron ore is concerned, the delay at discharging ports, coupled with the 45 cent rate from Lake Superior, and the fact that less ore will be required by the furnaces in July than any other month on account of the usual annual shut down, has made the market almost lifeless.

Coal tonnage at the all round rate of 20 cents has been in fair demand, but with no down bound cargoes in sight there is but little encouragement to carry coal at so low a figure.

Grain freights show no improvement and chartering has been extremely light at $\frac{3}{4}$ cents on corn to Buffalo.

TO LICENSE OFFICERS OF SAIL VESSELS OF OVER 700 TONS.

(Tuesday's Congressional Discussion.)

Mr. Perkins. Mr. Speaker, I ask unanimous consent to call up the bill S. 622, reported by the Committee on Merchant Marine and Fisheries.

* * * here follows the bill.

Mr. Perkins. The object of the bill is simply to put sailing vessels above 700 tons upon the same footing as steam vessels.

Mr. Bailey. And it makes no change in the law except that?

Mr. Perkins. That is the only purpose of the bill.

Mr. Bailey. And it does not require the performance of any duties by any of these officers which are now appointed by the States themselves?

Mr. Perkins. Oh, no.

Mr. Simpson. Do I understand that this bill is to apply the law as to steam vessels to sail vessels above 700 tons?

Mr. Perkins. Yes.

Mr. Simpson. That is, officers of sailing vessels shall pass the same examination and shall have a certificate given them as pilots the same as on steam vessels?

Mr. Perkins. Yes.

Mr. Love. Then it is for the protection of the traveling public?

Mr. Perkins. Yes.

Mr. Minor. Does this apply to the lakes as well as coastwise trade?

Mr. Perkins. It is applicable to sail vessels of over 700 tons.

Mr. Minor. All sail vessels?

Mr. Perkins. Yes.

Mr. Minor. Let me ask you this question: What do you propose to do with tow barges? How do you class them—as sailing vessels?

Mr. Perkins. I do not suppose they are affected by this bill.

Mr. Minor. Let me say to the gentleman that a part of the time some of these barges are sailing vessels.

Mr. Loud. A barge cannot be a sailing vessel.

Mr. Minor. They are sometimes sailing vessels.

Mr. Loud. The term "sailing vessel" must mean that the motive power is sail power.

Mr. Minor. Let me suggest to the gentleman from California that one trip may be made under sail power by one of these barges from Chicago to Buffalo loaded on her way down with grain, and she may return in tow of a steam vessel. Now, tell me whether it is a tow barge or a sailing vessel?

Mr. Loud. That would have to be determined by the inspection as to what that vessel's motive power is. Your barges, as a rule—there may be a few exceptions—have not sufficient sailing power to make that the motive power. They have enough, perhaps, in case of a storm to assist them.

Mr. Minor. I want to say to the gentleman from California nearly one-half of all the barges being towed on the Great Lakes are supplied with a sufficient amount of canvas to care for themselves in case the tow-line parts.

Mr. Loud. Yes.

Mr. Minor. They are provided with ground tackle, consisting of two anchors; they have a donkey engine and generally three spars, and sometimes four, and more or less canvas, so that in case of a storm, where the tow-line parts, they can make a port or come to anchor in safety.

Mr. Loud. Very true.

Mr. Minor. Now, you see this matter is somewhat mixed. If a vessel makes a trip this week in tow of a steam barge, and the same vessel next week makes the trip with her own motive power—canvas—I want to know where she is going to be classed under this bill?

Mr. Loud. I do not think barges are adapted for making trips under their own power. They have not steam power, as a rule, sufficient to propel them, with a fair wind, over 2 or 3 knots an hour.

Mr. Minor. Oh, the gentleman is mistaken. There are hundreds of barges being towed on the lakes capable, in a fairly good leading breeze, of making 8 or 10 knots an hour.

Mr. Perkins. Would not they be classed as barges and not as sailing vessels?

Mr. Minor. When in tow of steam barges they would be classed as barges.

Mr. Perkins. They would not be inspected as sailing vessels, but as barges.

Mr. Minor. While I am a believer in the bill, having believed for years that pilots who take charge of sailing vessels having a carrying capacity of 700 tons or over should bear the same investigation and be examined and have the same qualifications as steam vessels, I want the thing settled so that every barge in tow of a steamboat shall have her officers properly examined, just the same as though they sailed continually.

Mr. Simpson. I think the gentleman is entirely right. I know of several disasters that have happened on the lakes where the owners of barges have put incompetent men in charge, and when they have broken loose they were sunk and the crew lost by the ignorance of the commanding officers. I think this law ought to be extended so that the commanders of barges shall be examined.

Mr. Minor. Mr. Speaker, I desire to present an amendment to the bill. My chief objection to the bill is that it is not definite enough. I want the bill made specific. I want the same rule to apply to barges that applies to sailing vessels, because, as I stated a moment ago, perhaps one trip a barge is a vessel, depending on her canvas for motive power, and the next trip she is in tow of a steamboat, and I want

the men in charge and who are responsible to be just as well qualified, whether she is in tow of other vessels as a barge or a vessel under sail; because they sail one trip and are towed the next trip. Now, in line 7, on the first page, I desire to insert the following after the word vessels: "and all barges in tow of steam vessels."

Mr. Wheeler, of Kentucky. After examining the amendment of the gentleman from Wisconsin (Mr. Minor), I am satisfied that it includes barges on our navigable rivers. I wish to ask the gentleman whether he has any objection to adding to the bill a proviso exempting barges on navigable rivers. If the provisions of this bill should be extended to barges towed from place to place on the rivers of the country, it would practically amount to a prohibition of such traffic. I do not think any such effect was intended; and that construction will be obviated if an exemption such as I have suggested be inserted.

Mr. Loud. If the gentleman from Wisconsin modifies his amendment so as to make it applicable only to the Great Lakes, that will accomplish the object.

Mr. Wheeler, of Kentucky. There will be no objection to that.

Mr. Minor. I ask unanimous consent that the amendment I proposed some time ago be so modified as to apply only to barges and sailing vessels on the Great Lakes. That will remove the objection suggested by the gentleman from Kentucky.

Mr. Wheeler, of Kentucky. I suggest that the difficulty can be obviated by adding to the last section a provision that the bill shall not apply to the navigable rivers of the United States.

Mr. Loud. That will not do, because in order to reach steamers the provisions of the bill must, of course, extend to rivers.

Mr. Wheeler, of Kentucky. I have no interest in this matter further than to limit the operation of the amendment of the gentleman from Wisconsin so that it will not apply to barges on navigable rivers.

The clerk read as follows:

After the words of the amendment just added, as follows: "and all barges in tow of steam vessels," insert the words "on the Great Lakes."

The amendment was agreed to.

The bill as amended was ordered to a third reading; and being read the third time, it was passed.

On motion of Mr. Perkins, a motion to reconsider the last vote was laid on the table.

Mr. Loud. Mr. Speaker, it does not seem now that the title of the bill is correct. It ought to be amended to conform with the action taken by the House.

Mr. Cannon. If the words "and for other purposes" were added, it would make it all right.

The Speaker pro tempore. If there be no objection, the words suggested by the gentleman from Illinois, "and for other purposes," will be added.

There was no objection.

RULING ON VESSEL WAR TAX.

Vesselmen have been advised by Harvey D. Goulder, Esq., counsel for the Lake Carriers' Association, that a ruling in the new war tax laws with reference to the commerce of the lakes, will be given by the treasury officials next week. He said that he felt confident that it would be held that the law did not intend to take in the coastwise commerce of the country at all, but was framed with an idea of levying the tax on the foreign trade entirely. Vessel agents, claim that if they are forced to pay the full amount of the tax on each charter the profits of the business would go to the government instead of into their own business.

NOTICE TO MARINERS.

CLEVELAND, OHIO, June 2, 1898.

The Cleveland branch Hydrographic Office, Bureau of Equipment, U. S. N., has received the following:

The new steel water in-take crib, which has just been sunk in Lake Erie, opposite the city, is located, from the west breakwater light, N. 32° 15' W., a distance of 18,040 feet. It is on the prolongation of the line of the two temporary cribs already in place and 7,200 feet from the outer one. The crib is circular, 100 feet in diameter, and shows about 21 feet above water at this time. The contractors will display a white anchor light at night.

A SOUTH AMERICAN STEAMSHIP LINE.

A representative of a United States syndicate is at present in Venezuela investigating the advisability of establishing a new line of steamers to ply between the city of New York and the ports of Venezuela, touching at some of the West Indies. He has already contracted for, and has been guaranteed, according to a recent report, 2,000 tons of freight per month. The proposed route will take in the islands of St. Thomas, St. Kitts, Guadeloupe, Martinique, the Barbados, and Trinidad. The proposed enterprise also contemplates steam communication on the Orinoco river. United States business interests in the Republic of Venezuela are developing in divers directions at the present time. A building and loan company has been established in Caracas, the principal capital for which will come from the northern republic.

ADJUSTMENT OF SHIPS' BAROMETERS.

The Weather Bureau official at the "Soo," Mr. Alexander G. Burns, will be in his office or on the canal locks as much of the time as may be possible, for the purpose of adjusting ships' barometers.

Vessel masters are invited to have their barometers compared and adjusted whenever passing the "Soo." There is a slight rise in pressure (about two-hundredths of an inch) in passing through the locks bound down, and a fall of the same amount bound up. In making a trip from Duluth to Buffalo the changes in the barometer, supposing, of course, that normal weather conditions prevail throughout the entire passage, should be as follows: Starting at Duluth in July the barometer should read about 29.31 inches; at Marquette it should be about 29.29; below the locks at the "Soo," about 29.31; at Alpena, 29.34; Port Huron, 29.39; Detroit, 29.39; Cleveland, 29.40, and Buffalo, 29.36. On Lake Michigan the barometer should read about 29.37 or 29.38 under normal weather conditions.

TO RIVAL BUFFALO.

Buffalo is by no means destined to remain the gateway of the grain movement from the Northwest. This year there is a very great diversion to Canadian routes of the grain shipped from Fort William, Duluth and Chicago. From the two latter shipping points the Chicago, Duluth and Parry Sound line of boats are carrying corn and wheat to the elevator at Parry Sound. The upper lake boats running in connection with the Grand Trunk Railway carry wheat and corn to the elevator at Midland. By the Canadian Pacific Railway Co.'s vessels grain is carried to Owen Sound. Other lake carriers, as the Georgian Bay and Lake Superior Steamboat Line, bring down wheat and corn from the western ports to the various terminal elevators on Georgian Bay and Lake Huron. But the three Georgian Bay ports—Midland, Parry Sound and Owen Sound—are the main gateways. From the first the Grand Trunk Railway, from the second the Ottawa, Arnprior and Parry Sound Railway, and from the third the Canadian Pacific Railway, carry the grain onward across Ontario to tidewater and the ocean steamers at Montreal. The quantity of grain going from the Northwestern States by these routes is this year enormous. This in part explains the heavy earnings of the railway companies.—Mail and Empire.

MACHINERY FOR THE NAVY DEPARTMENT.

The Navy Department will shortly install a quantity of machinery in the navy yard at Mare Island, Cal., and for that purpose is inviting sealed proposals until July 13 for furnishing one combined punching and shearing machine; one motor-driven plate bending machine for ships' masts; one medium, multiple, belt-driven punching machine; two radial, jib, countersink drilling machines. An addition to the electric plant is also to be installed, and the following equipment is called for: One 100 K. W. dynamo and four 30 horse-power stationary dynamos, one 15 horse-power stationary motor, one switchboard and a quantity of cable wire.

Intending bidders desiring specifications and blank forms of proposals for the above can obtain the same upon application to the Paymaster General of the Navy, Washington, D. C., or to the commandant of the navy yard, or to the navy pay office at San Francisco, Cal.

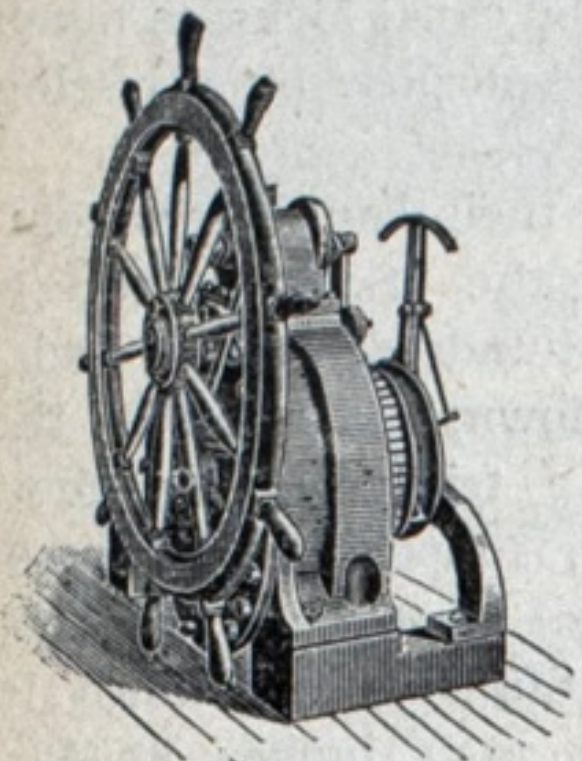
OPPOSED TO THE MEASURE.

Cleveland members of the Lake Carriers' Association are decidedly opposed to the measure of licensing masters and mates on schooners and tow barges on the lakes as being an entirely unnecessary piece of legislation, and will, if possible, condemn the law. Some of the prominent owners have telegraphed Senators and Representatives to defeat the bill, and if considered advisable a delegation will be sent to Washington to present the views of those engaged practically in the business relative to the demerits of such uncalled for supervision over their floating property.

COLLISION ON LAKE ERIE.

Early on Wednesday morning the C. & B. line passenger steamer State of New York from Cleveland to Toledo collided off Cleveland with the cargo steamer Henry Cort owned by the Bessemer Steamship Co. The passengers were given every assistance and no lives were lost. The port side-wheel and upper works of the New York were stove in, but the repairs to damage will only take a few days. The bow plates of the steal steamer Cort were bent, but can be heated and faired without the boat dry docking.

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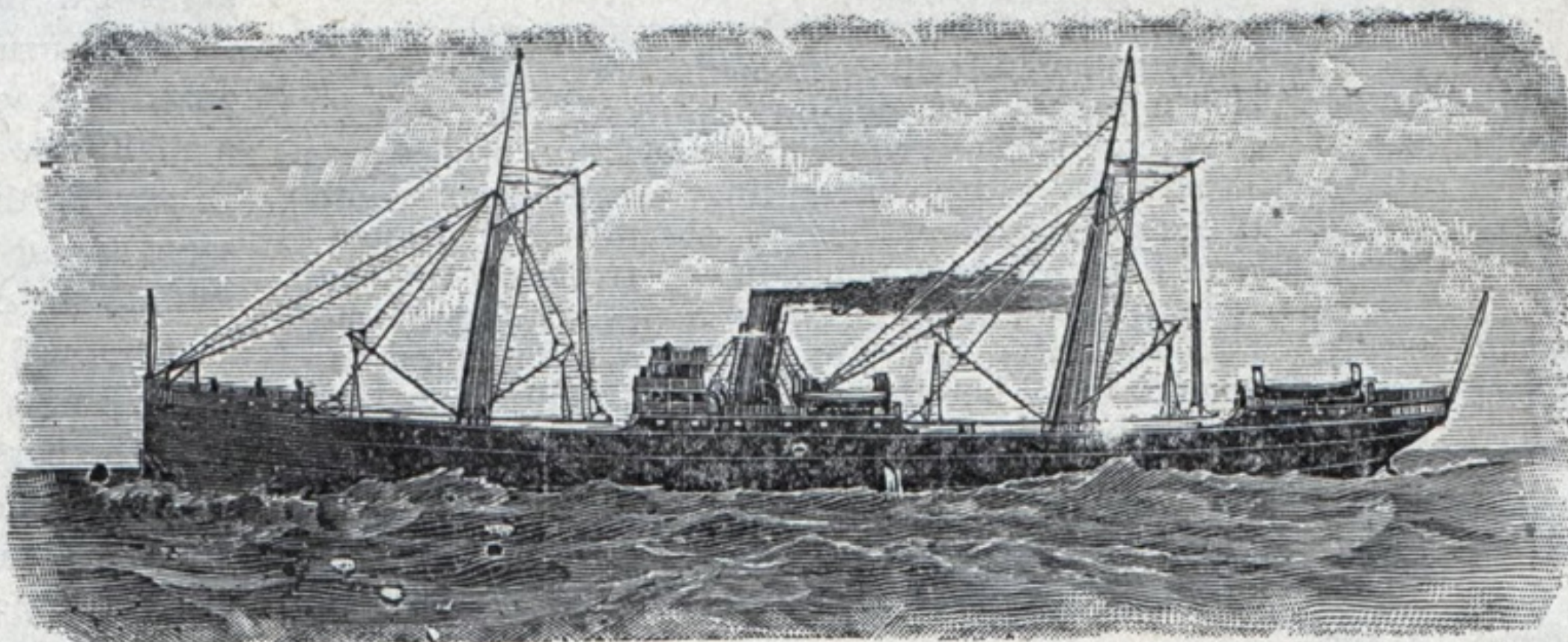
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WHEN TO EXHIBIT THE ENSIGN.

The RECORD has frequently taken occasion during the last couple of years to state how, when and where the United States ensign should be hoisted, and we have also dwelt at some length upon the fact that the flag should always be kept in a presentable condition—that is, clean as regards the material and in good repair relative to the fabric. We are now pleased to note that a bill has just been introduced in the United States Senate (§ 4827) by Mr. Frye, under date of June 27, relating to the flag of the United States on merchant vessels.

The bill reads as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that a registered or enrolled vessel of the United States shall hoist the flag of the United States:

- (a) On entering or leaving any foreign port.
- (b) On entering or leaving any port of the United States if the vessel is of fifty gross tons or more.
- (c) On signal made by a vessel of the Navy or of the Revenue Cutter Service of the United States.

SEC. 2. That failure to comply with the provisions of this Act shall render the master liable to a fine not exceeding one hundred dollars.

SEC. 3. That this Act shall take effect August first, eighteen hundred and ninety-eight.

It is only the ordinary practice of seamen, and common courtesy, to exhibit the flag on the occasions mentioned in the bill, yet, as there are some profound obstinates having the bunting under their command, we hail with much satisfaction the penalty clause attached to the measure, and would only add that besides showing the flag it should be exhibited in its entirety and always in perfect condition.

AN IMPORTANT ADMIRALTY DECISION.

The United States Supreme Court has handed down a decision in the case of Flint, Eddy & Co., appellants, against George Christall and James Creig, trustees, appellees. The case came up from the United States Circuit Court of Appeals for the second circuit. The Supreme Court, by its decision, holds that where a vessel, seaworthy at the outset, is afterward stranded by the negligency of her master, the shipowner, though exercising due diligence to secure seaworthiness, proper manning and equipping and supplying, under section 3 of the act of February 13, 1895 (Harter act), has no right to general average contribution for sacrifices and suffering by him subsequent to the stranding, in successful efforts to save vessel, freight and cargo.

The Supreme Court thus reverses the decision of Judge Brown of the United States District Court, New York. This decision will have an important bearing on several lake cases. The Christall-Flint case, as decided by district Judge Brown, will be found in Federal Reporter, volume 82, page 472. The question above decided was certified to the Supreme Court by the Court of Appeals for the second district. District Judge Brown, whose decision is now reversed, said in this case:

"Where due diligence has been exercised to make the ship seaworthy, and a common danger arises upon the voyage by 'fault or error in the navigation or management of the ship,' the third section of the act of February 13, 1895 (Harter act), declares, that, neither the vessel nor her owner, agent or charterer shall become or be held responsible for damage or loss resulting therefrom." The previous liability of the shipowner to the cargo owner for faults of navigation is thus abolished in all cases coming within the act. In such cases faults in the navigation or management of the ship are no longer, by construction of law, faults of the owner, as heretofore; and the ship and her owner are now no more liable to the cargo owner for his damages therefrom than the latter is liable to the shipowner for the resulting damages to the ship. Both are alike strangers to the fault, and equally free from all responsibility for it; and hence all expenditures or losses voluntarily incurred for the common rescue are no longer made in the discharge of an individual legal obligation, or in diminution of a fixed liability resting upon one of the parties only, but are truly a sacrifice, voluntarily incurred and for the common benefit, as much and as truly when made by the shipowner as when made by the cargo owner alone. On principle, therefore, in such cases, the one is as much entitled to a general average contribution for his sacrifices as the other."

ASTRONOMICAL DATA FOR JULY.

Astronomical data for July, 1898, furnished the MARINE RECORD by the Washburn observatory:

Mercury is an evening star, and may be visible the last part of the month. On July 31 the planet sets at about 8:30 p.m., some degrees north of the west point of the horizon. Venus is increasing rapidly in brilliancy as the evening star. By the end of the month the planet will set at about 9 p.m. near the west point of the horizon. Mars is seen in the morning sky, and rises from 1:15 to 12:20 a.m. Jupiter is the bright planet in the southwestern sky in the evening, and sets from 11:35 to 9:45 p.m. Saturn is rather low in the south, and crosses the meridian from 9:40 to 7:40 p.m.

There will be an annular eclipse of the sun July 18. The course of the central shadow lies entirely in the South Pacific

ocean. The latter begins east of New Zealand at 12:36 p.m. and ends southwest of Cape Horn at 2:38 p.m., central time. There will also be a partial eclipse of the moon on the afternoon of July 3, visible only in the eastern world.

The times of sunrise and sunset at Milwaukee for the month are as follows:

SUNRISE.				SUNSET.			
July 1,	4	hours,	16 minutes,	7	hours,	34 minutes.	
July 11,	4	"	23 "	7	"	31 "	
July 21,	4	"	31 "	7	"	24 "	
July 31,	4	"	41 "	7	"	14 "	

The times of the moon's phases are:

Full moon,	July 3,	3	hours,	12 minutes,	p. m.
Third quarter,	" 10,	10	"	43 "	a. m.
New moon,	" 18,	1	"	47 "	p. m.
First quarter,	" 26,	7	"	40 "	a. m.

The principal fixed stars visible during the month in the evening hours are: To the west, Arcturus and Spica; near the meridian, Antares; to the east, Vega and Altair.

INLAND LLOYDS JULY SUPPLEMENT.

The new vessels classed and rated in the Inland Lloyds Supplement for June are given a valuation for insurance purposes only of \$970,000, made up as follows: Side-wheel steamer City of Erie, \$450,000; screw steamers America, \$70,000; Isaac Lincoln, \$30,000; Alex McDougall, \$240,000; tugs Bradwell, \$6,000, and C. W. Endress, \$9,000; schooners Chattanooga, \$80,000, and Chickamauga, \$85,000.

VESSELS CLASSED.

The American Shipmasters' Association, New York, have classed or rated in the "Record of American and Foreign Shipping" this week the following named vessels: American screw steamers (elevators), Isis and Themis; brig, Franklin; schooner, Lyman M. Law; British schooners, Laura C. Hall, Vere B. Roberts; half-brig, Rapid; screw steamer, Kimon, and the American schooner Mecosta and American transport Newton.

Buffalo vessel men believe that whalebacks will be used to carry iron ore from Cuba as soon as the war is over. They say that ore cannot be carried from Lake Superior with any profit, and after the war is over the rich fields of Cuba will be opened for working without interference. Carnegie will use most of the whalebacks to carry ore. The whalebacks can stand a heavy sea, at least such has been their lake experience.

INSPECTOR OF HULLS, STEAMBOAT INSPECTION SERVICE, TREASURY DEPARTMENT, JULY 21, 1898.

The United States Civil Service Commission announces that on July 21, 1898, examination may be taken at any city in the United States where the commission has a board of examiners, to establish a register of eligibles for the grade of inspector of hulls, steamboat inspection service, Treasury Department, at Memphis, Tenn., at which port a vacancy exists. The salary of this position is \$1,200 per annum.

The examination will consist of the subjects mentioned below, which will be weighted as follows:

Letter writing	10
Arithmetic (which will consist of problems in common and decimal fractions, mensuration and square root)	10
Hull construction	30
Pilot rules and inland navigation	20
Life boats and life rafts	10
Experience	20
Total	100

Two (2) days will be allowed for this examination.

Applicants for this examination must have had at least five (5) years' practical experience as master or first class pilot of steam vessels on inland waters. A portion of this five years must have been within the seven years next preceding the date of application. The five years' experience must have been under United States license of the highest grade granted upon the waters on which the applicant has been so employed. The fact that he is so licensed must be of record in the Treasury Department.

Applicants must be free from the defect of color blindness.

This examination is open to all citizens of the United States who comply with the requirements, without regard to race or to political or religious affiliations. All such citizens are invited to apply. They shall be examined, graded, and certified with entire impartiality and wholly without regard to any consideration save their ability as shown by the grade they attain in the examination.

Applicants must be legal residents of the local inspection district of Memphis, Tenn., which comprises the eighth, ninth and tenth Congressional districts of Tennessee and the second Congressional district of Mississippi.

Persons desiring to enter this examination should at once write to the United States Civil Service Commission, Washington, D. C., for application blanks, Forms 304 and 363, which should be properly executed and promptly forwarded to the commission.

WAR TAXES ON SHIPPING INTERESTS.

The following are the new war taxes now in effect that apply to the shipping interests:

Bill of lading or receipt (other than charter party), for merchandise for export	\$0.10
Bill of lading, manifest, or receipt, and each duplicate thereof, express and freight	.01
Bonds of indemnity	.50
Broker, commercial	20.00
Broker's note or memorandum of sale	.10
Broker, custom house	10.00
Custom house entry of merchandise	
Certificates of profit and transfers thereof, on each \$100 or part of	.02
Certificates issued by port warden or surveyor	.25
Certificates, all other, required by law, not elsewhere specified	.10
Charter contracts or agreements, or renewals or transfers of:	
For vessels not exceeding 300 tons	3.00
For vessels exceeding 300 and not exceeding 600 tons	5.00
For vessels exceeding 600 tons	10.00
Not exceeding \$100 in value	.25
Exceeding \$100 and not exceeding \$500	.50
Exceeding \$500	1.00
Entry for withdrawal of merchandise from customs bonded warehouse	.50
Insurance policies (marine, inland, fire), except purely co-operative or mutual, on each dollar of the amount of premium	1/2 of 1c.
Manifest for entry or clearance of vessel for foreign port:	
When registered tonnage does not exceed 300 tons	1.00
When registered tonnage exceeds 300 tons and does not exceed 600 tons	3.00
When registered tonnage exceeds 600 tons	5.00
Marine protest, bill of exchange, acceptance	.25
Passage tickets from United States to foreign ports:	
Costing not over \$30	1.00
Costing more than \$30 and not over \$60	3.00
Costing more than \$60	5.00

THAT DEEP WATERWAY TO THE COAST.

Speaking of the deep waterway between the Great Lakes and the ocean, Engineer G. Y. Wisner, of Detroit, who is a member of the Deep Waterways Commission, says:

"Conditions are arising which make it next to impossible for the Deep Waterways Commission to estimate the value to shipping of their proposed works. It would be a simple matter to make this estimate if conditions were to remain as they are at present, but we must also take into consideration the development of lake shipping which will follow the opening of a deep waterway to the sea.

"The war is the chief cause of uncertainty. I am of the opinion that our navy has come to stay, and that from now on we will be building more warships all the time. These can be built on the Great Lakes much more cheaply than on the coast, and they will be safer, as the enemy cannot reach them if war should suddenly break out.

"The development of a navy is sure to be followed by the development of a great merchant marine, and the ships for

this will also be constructed on the lakes, if there is a way to get them to the ocean.

"Another thing that must be considered is that England has been getting her metals from Spain. The supply there is getting so low that the handling is expensive, and she must find another source of supply. It is expensive to get ore in Sweden, and if there is an opportunity to ship ore from the lakes to England without unloading, she will be sure to look here for her supply.

"I feel satisfied that all these changes will follow the opening of a deep water route to the Atlantic. And it is almost an impossibility for us to estimate the benefits of such a work."

EASTERN FREIGHTS.

Messrs Funch, Eddy & Co., New York, in their latest freight report to the MARINE RECORD state as follows:

A reference to the list of boats chartered for grain discloses the smallest number of fixtures since a great many months, and would be a very poor commentary to the position of the of the North Atlantic ports as exporters of grain, were we not enabled to add our conviction that a turn to more active business is before us, and will be reflected to some extent by increasing list of figures in our next. The demand for tonnage is widening, whilst open vessels are gradually disappearing, and we look for some enquiry for boats for July-August at 3s. for Cork f. o., 2s. 6d. @ 2s. 9d. for picked ports for larger tonnage. Berth freights have been fairly active during the last few days, and, whilst still low and unremunerative, liners have covered their requirements for some weeks ahead at a trifle better figures. There is still some enquiry for deals from the Provinces, where apparently the lowest freight rates have been touched. There is not much demand for steamers for miscellaneous purposes, but timber freights from the Gulf port have been well maintained, although there are apparently no more pressing wants uncovered.

We cannot, since our last, report much activity in sail tonnage, and although there is a scarcity of non-belligerent vessels, the market does not exhibit the same degree of strength as ruled a short while ago. This is especially noticeable in quotations for case oil freights to the Far East. South American freights continue firm, but, with the growing tendency of American vessels to except such business, it appears likely that before long rates in this direction will decline.

THERE are 41 ships engaged in the ocean cable telegraph service. The total capital invested in the submarine lines is estimated at \$200,000,000 and the number of lines is 1,305, of which 37 are over 1,000 miles long and 93 over 500 miles.

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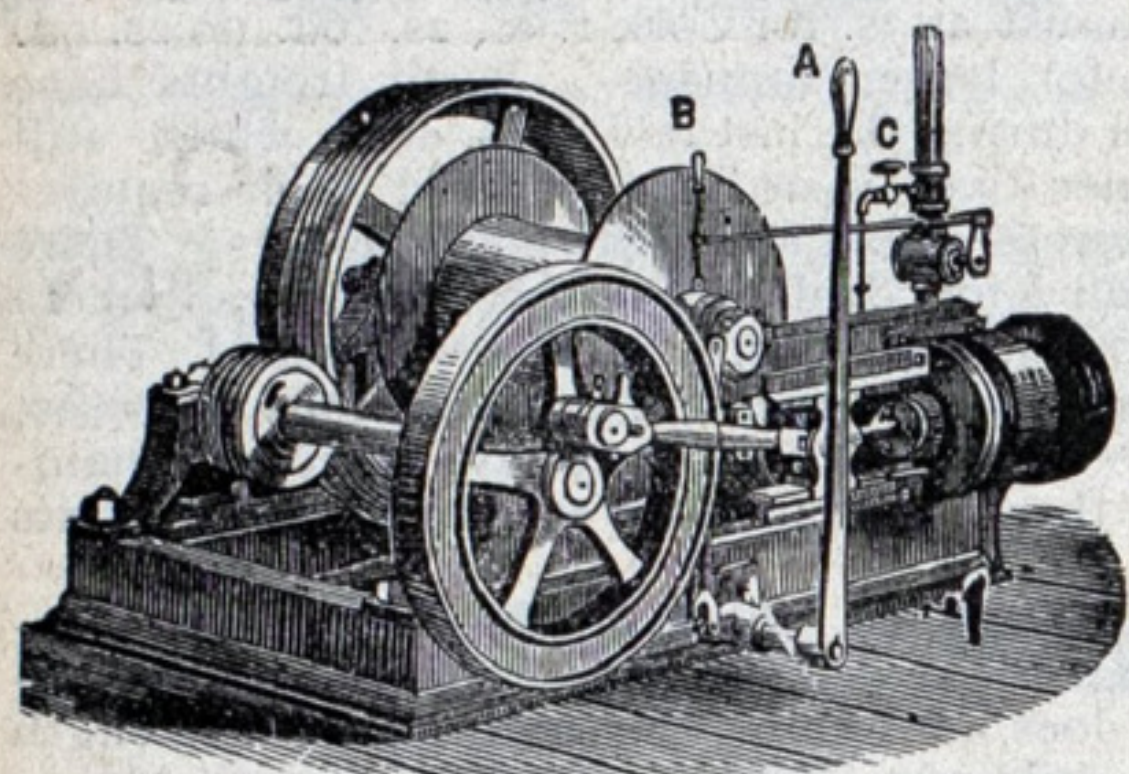
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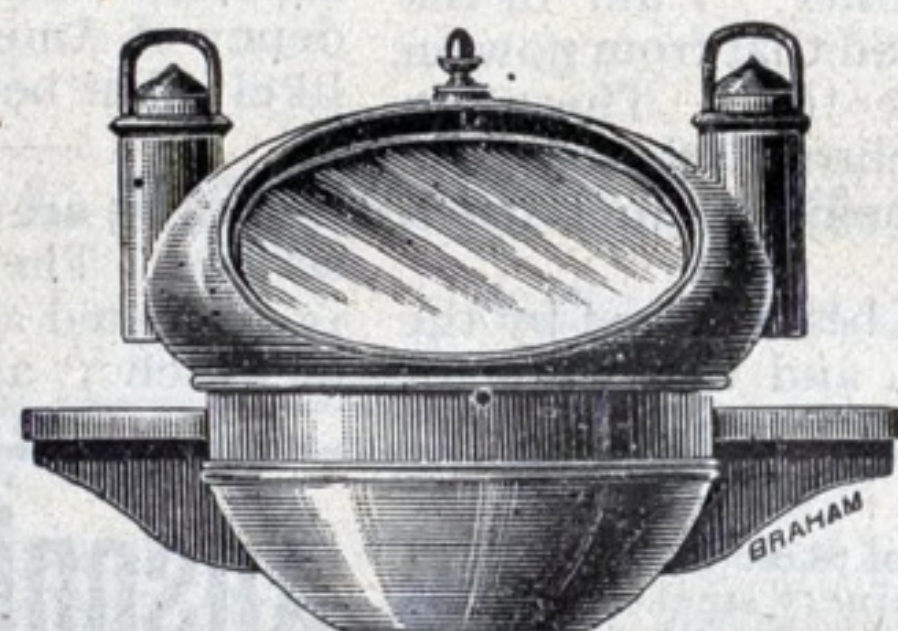
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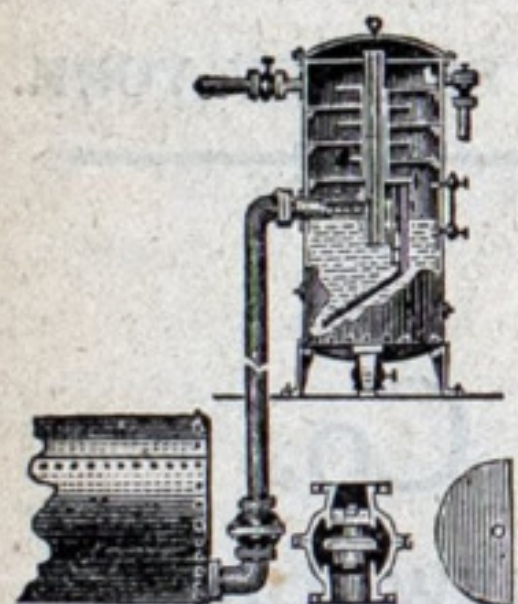
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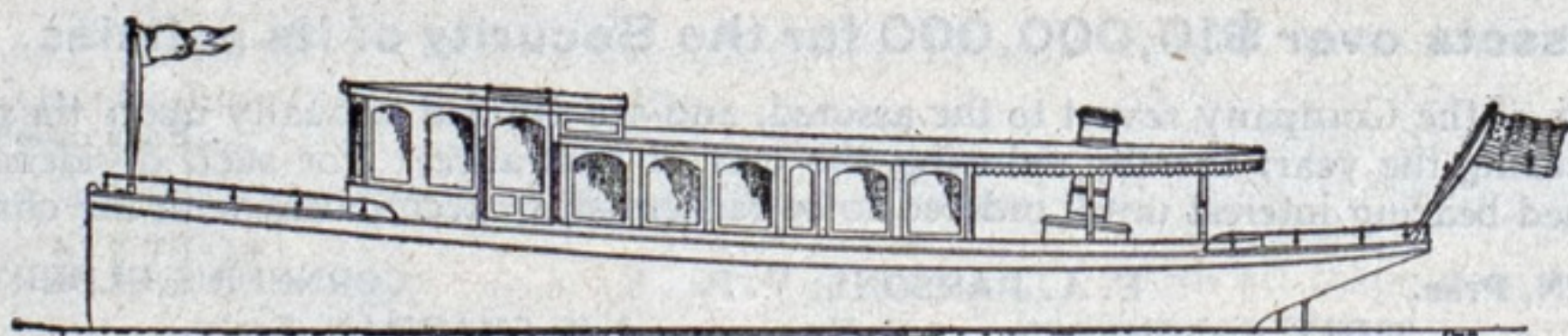
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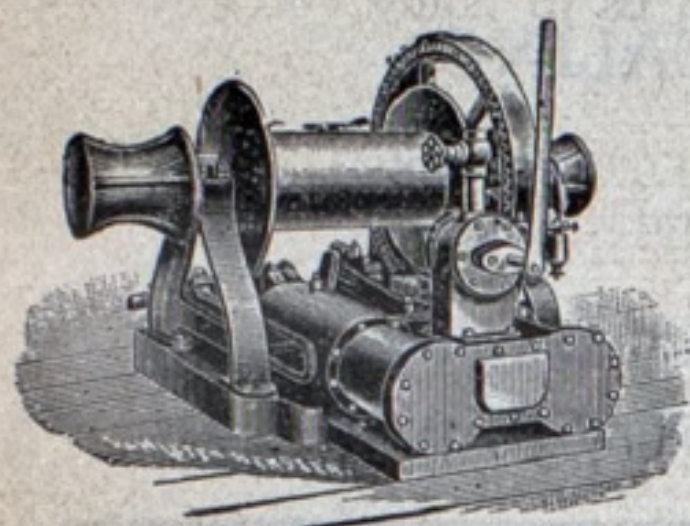
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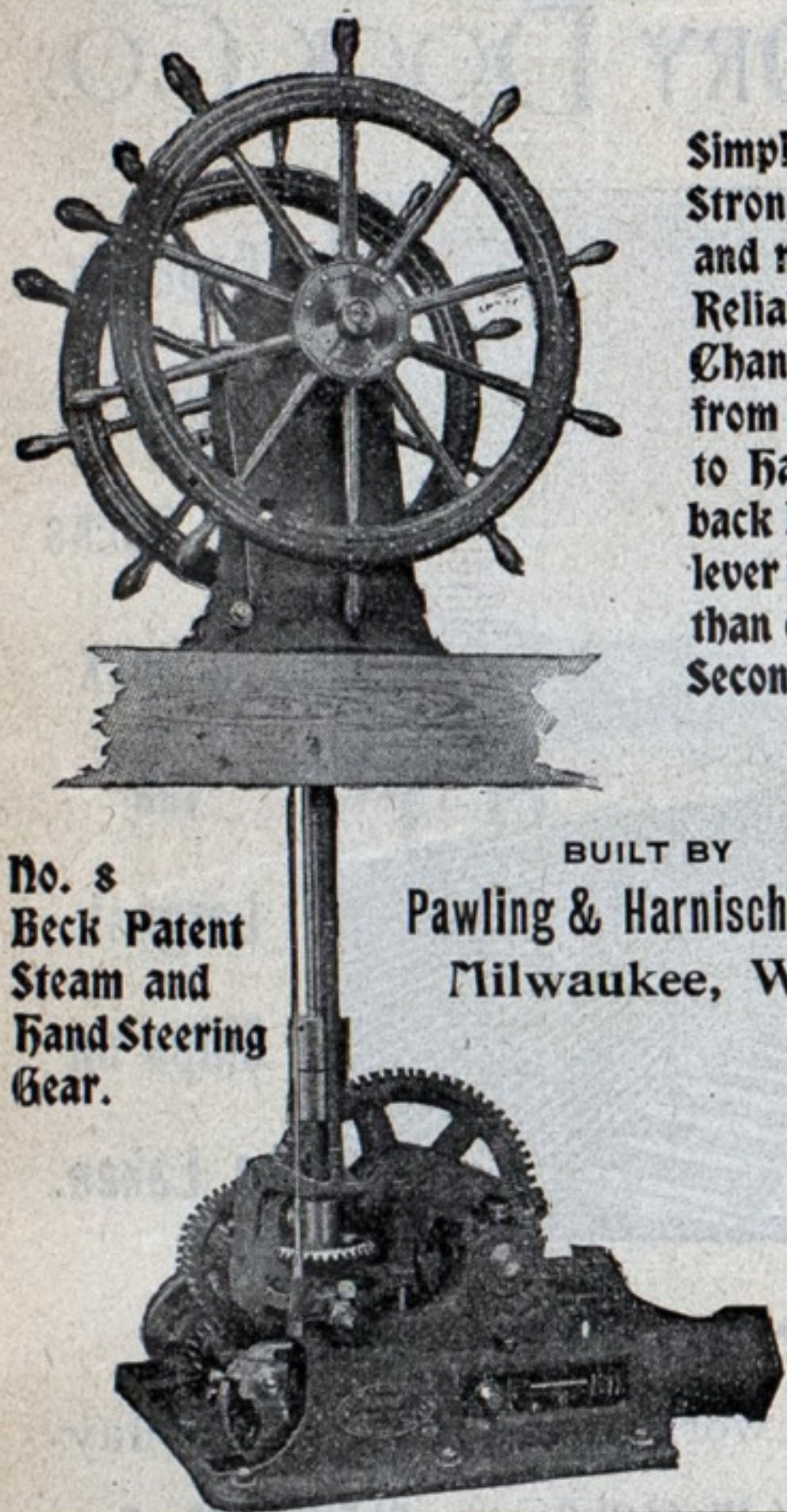
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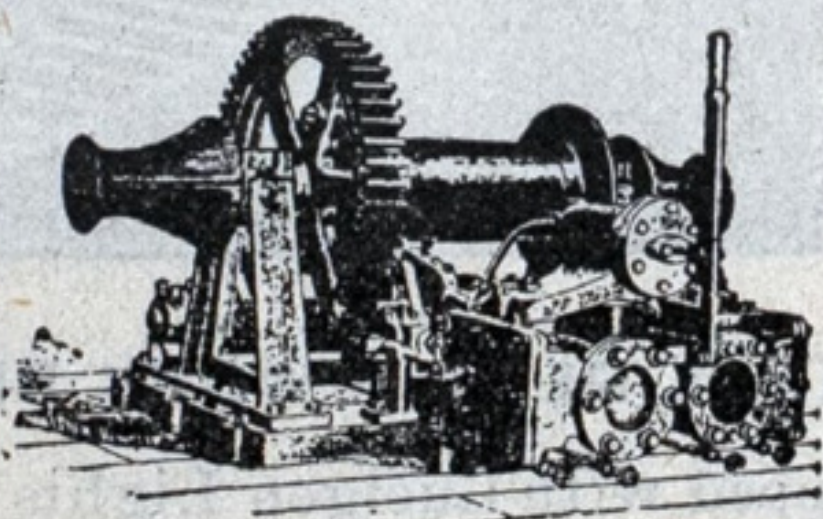
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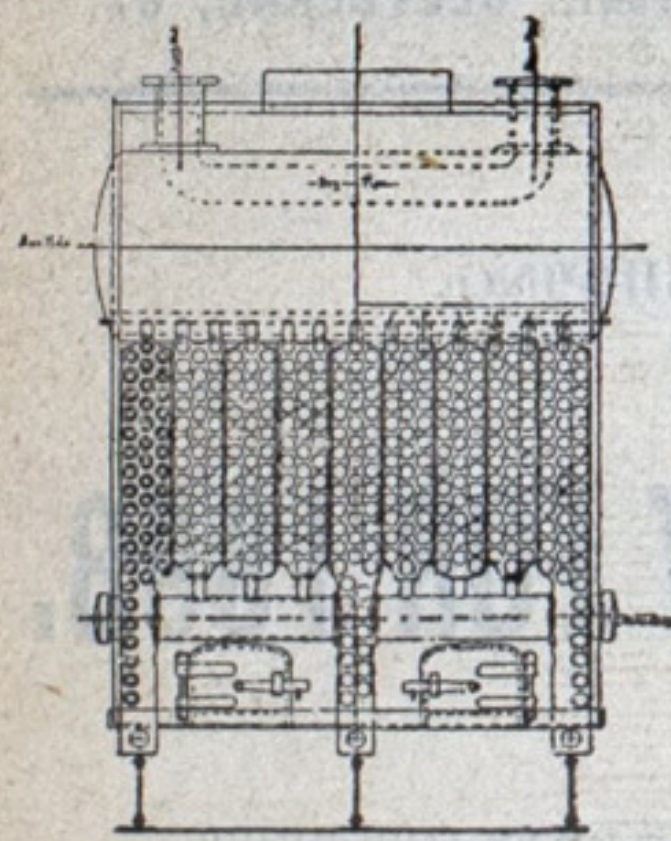
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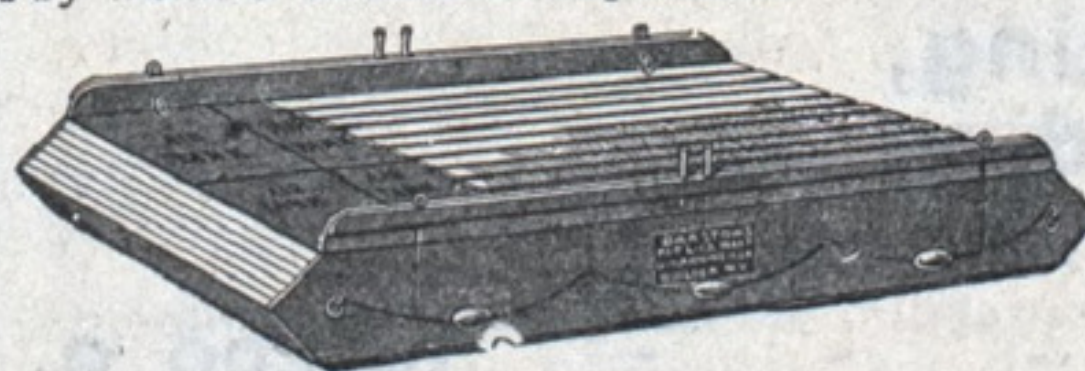
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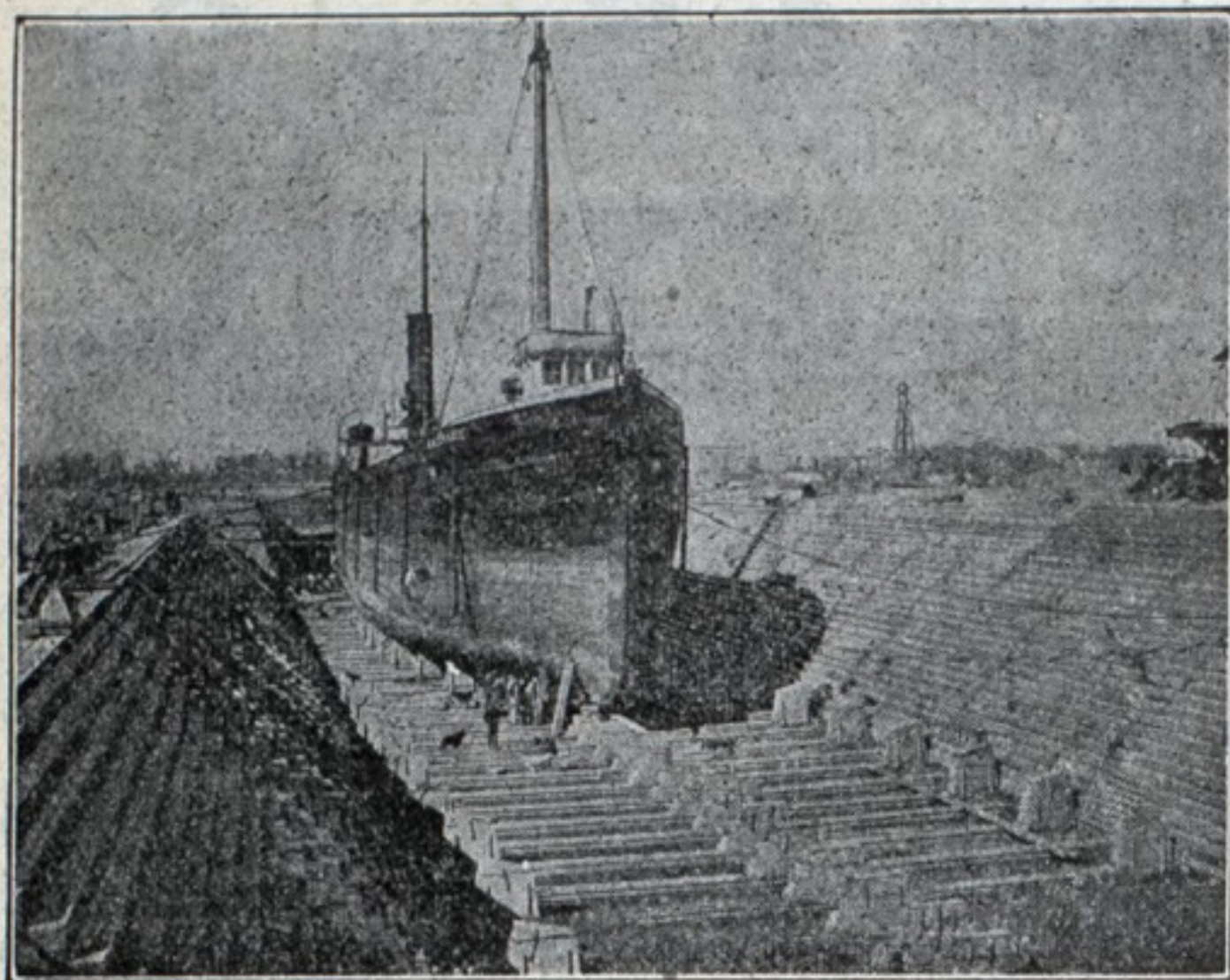
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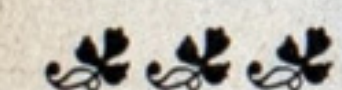
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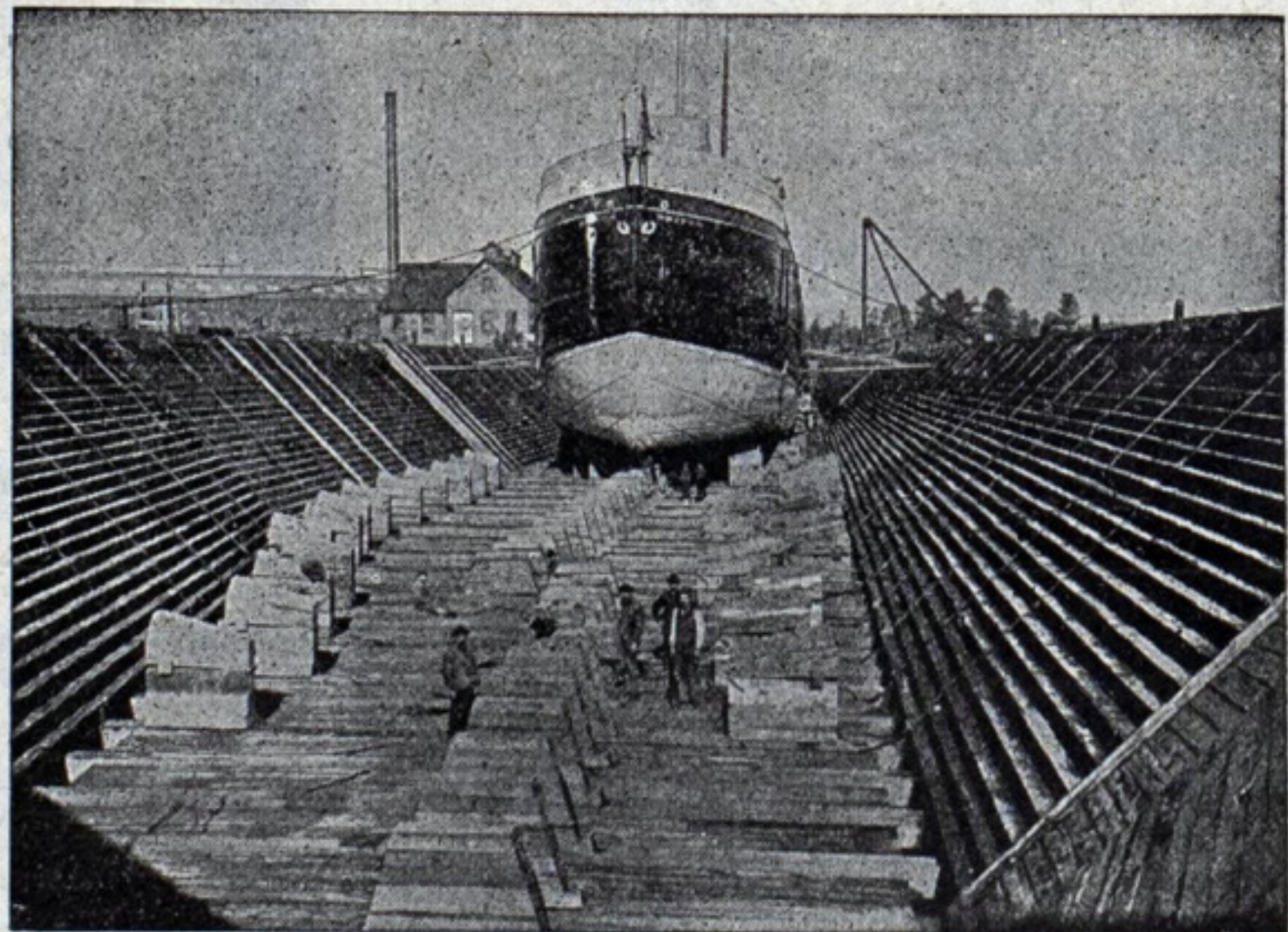
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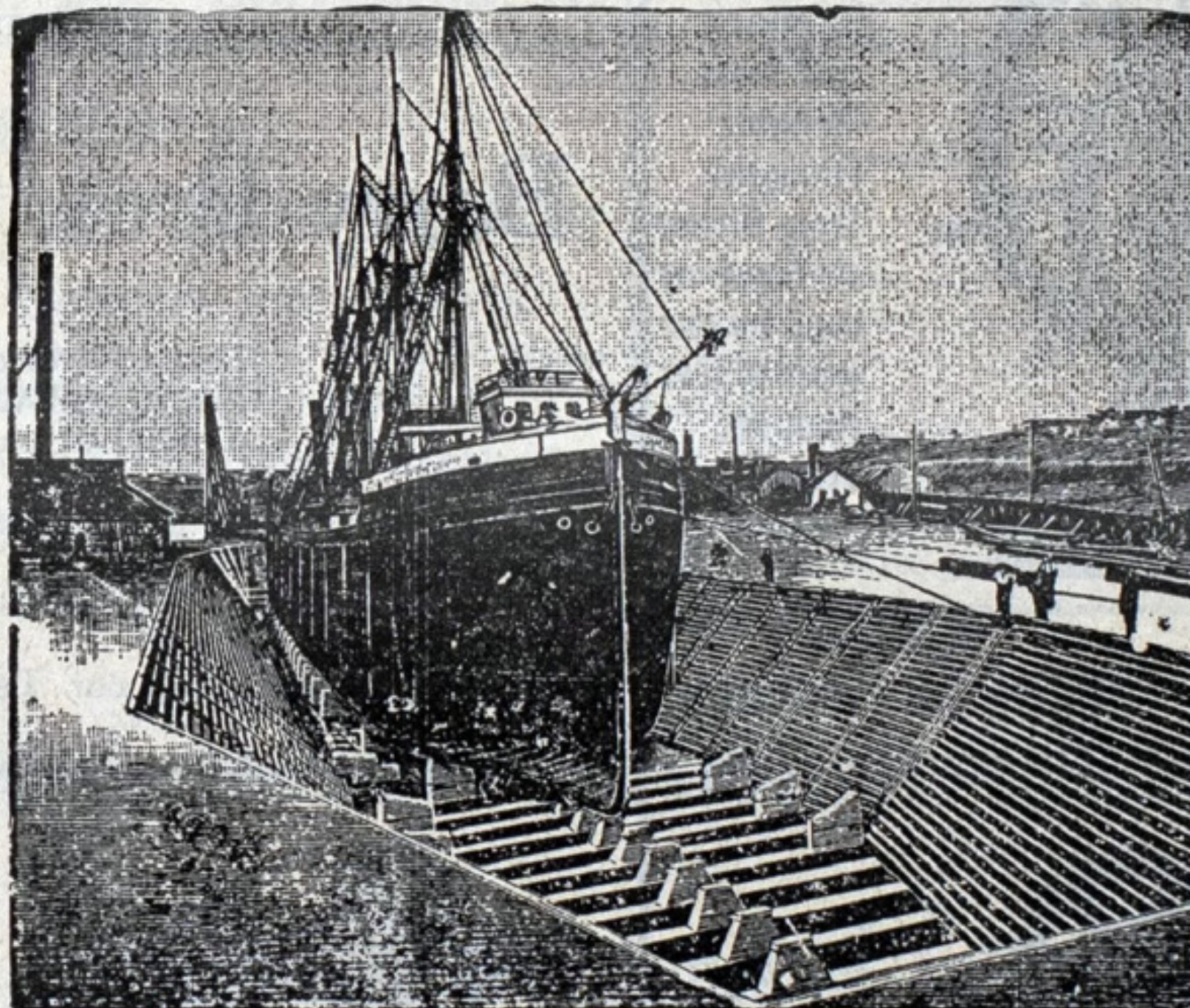
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